This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

We also ask that you:

+ *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
+ *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
+ *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
+ *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at `http://books.google.com/`

NYPL RESEARCH LIBRARIES
3 3433 07597495 0

Z
Mr 19'24

TRANSACTIONS

OF THE

MEDICAL ASSOCIATION

OF THE

STATE OF ALABAMA,

THE REPORT OF THE STATE BOARD OF HEALTH.

FIFTEENTH ANNUAL SESSION—1883.

BIRMINGHAM. APRIL 10TH-13TH.

MONTGOMERY, ALA.:
W. D. BROWN & CO., STEAM PRINTERS AND BOOK BINDERS.
1883.

c w

TO NEW YORK
PUBLIC LIBRARY
133386A
ASTOR, LENOX AND
TILDEN FOUNDATIONS
R 1924 L

THE MINUTES OF THE PROCEEDINGS

OF THE

MEDICAL ASSOCIATION OF THE STATE OF ALABAMA.

PREFACE.

We, the Committee of Publication, respectfully submit the volume of Transactions for 1883—being the XV of the series—with the earnest hope that it will meet the approval of the members of the Medical Association of the State of Alabama.

T. A. MEANS, M. D.,
R. F. MICHEL, M. D.,
J. S. WEATHERLY, M. D.,
Committee of Publication.

THE MINUTES OF THE PROCEEDINGS.

SESSION OF 1883.

THE PROCEEDINGS OF THE FIRST DAY.

TUESDAY, APRIL 10.

The Association assembled in Sublett Hall at 10 o'clock A. M., April 10th.

(The Treasurer being absent, Dr. F. Tipton was appointed to fill his place temporarily.)

The following Counsellors and Delegates appeared and registered:

SENIOR COUNSELLORS.

JEROME COCHRAN, Mobile; JOHN JEFFERSON DEMENT, Huntsville; JAMES MYERS GODFRY, Sumterville, Sumter county; SAMUEL MARDIS HOGAN, Union Springs, Bullock county; DANIEL STILES HOPPING, Letohatchee, Lowndes county; ROBERT DANDRIDGE JACKSON, Summerfield, Dallas county; WILLIAM HENRY JOHNSTON, Selma, Dallas county; MORTIMER HARVEY JORDAN, Birmingham, Jefferson county; JOHN COOPER LEE, Blount Springs, Blount county; EDWARD DAVIES MCDANIEL, Camden, Wilcox Co.; CLIFFORD DANIEL PARKE, Selma, Dallas county; FRANCIS MARION PRINCE, Jonesboro, Jefferson county; JOHN ALBERT PRITCHETT, Hayneville, Lowndes county; BENJAMIN HOGAN RIGGS, Selma, Dallas county; JOHN WILLIAM SEARS, Birmingham, Jefferson county; LUCIUS ERNEST STARR, Camden, Wilcox county; JOB SOBIESKI WEATHERLY, Montgomery; ROBERT DICKENS WEBB, Livingston, Sumter county.—18.

JUNIOR COUNSELLORS.

JAMES PAXTON BARKLEY, Eutaw, Greene county; JOSEPH BEVANS, Gadsden, Etowah county; DUDLEY S. BROCKWAY, Coatopa, Sumter county; GEORGE WASHINGTON BROWN, Pratt Mines, Jefferson county; DAVIS ELMORE CASON, Ashville, St. Clair county; CALVIN AUGUSTUS CROW, Moulton, Lawrence county; WILDS SCOTT DUBOSE, Columbiana, Shelby county; RICHARD MATHEW FLETCHER, Madison Station, Madison county; VIVIAN PENDLETON GAINES, Mount Sterling, Choctaw county; JOSEPH A. GOODWYN, Jasper, Walker county; RICHARD NATHANIEL HAWKINS, Montevallo, Shelby county;

SAMUEL H. HILL, Carrollton, Pickens county; ROBERT HUGHES HAYES, Union Springs, Bullock county; JOHN RICHARDSON HOFFMAN, Athens, Limestone county; JAMES BUCHNER LUCKIE, Birmingham, Jefferson county; THOMAS ALEXANDER MEANS, Montgomery; JOSEPH MOODY, Bridgeville, Pickens county; ISAAC DUBOSE MORGAN, Eutaw, Greene county; JOHN PATRICK MUSHATT, Hayneville, Lowndes county; JOHN CALHOUN PARHAM, Gainesville, Sumter county; WILLIAM CRAWFORD PHILLIPS, Selma, Dallas county; THADDEUS LINDLEY ROBERTSON, Oxford, Calhoun county; EDWARD HENRY SHOLL, Birmingham, Jefferson county; SAMUEL PARISH SMITH, Prattville, Autauga county; OFFA LUNSFORD SHIVERS, Newbern, Hale county; WILLIAM HENRY SLEDGE, Livingston, Sumter county; ANDREW MCADAMS STOVALL, Jasper, Walker county; WILLIAM FLETCHER THETFORD, Boligee, Greene county; FRANK TIPTON, Selma, Dallas county; CONRAD WALL, Forrest Home, Butler county; MILTON ROIL WRIGHT, Gadsden, Etowah county—32.

DELEGATES.

Autauga County Medical Society.—THOMAS G. HOWARD, Mulberry.

Barbour County Medical Society.—ALBERT GOODWIN; SIMON AUGUSTUS HOLT, Eufaula.

Blount County Medical Society.—A. S. DAVIDSON, Gurley's Creek.

Bullock County Medical Society.—CHARLES HENRY JERNIGAN, Enon.

Calhoun County Medical Society.—JOHN CLARK LEGRAND, Weaver's Station; J. L. HUGHES, Cross Plains.

Chilton County Medical Society.—J. S. PITTS, Verbena.

Choctaw County Medical Society.—WILLIAM C. FORSTER, Mount Sterling.

Coosa County Medical Society.—JOHN J. HUNTER, Rockford.

Dallas County Medical Society.—WILLIAM Q. KENDALL, King's Landing.

Etowah County Medical Society.—EDWARD GAUDY BEVANS, Gadsden.

Greene County Medical Society.—HENRY JOHN SANDERS, Clinton; CHARLES MCALPIN WATSON, Eutaw.

Hale County Medical Society.—EDWARD BURTON WARD, Greensboro.

Henry County Medical Society.—JOHN P. CRAWFORD.

Jackson County Medical Society.—DAVID BLACKBURN MCCORD, Scottsboro; W. C. MAPLES, Bellefont.

Jefferson County Medical Society.—J. D. S. DAVIS; J. C. DOZIER, Birmingham.

Lee County Medical Society.—AURELIUS G. EMORY, Opelika.

Limestone County Medical Society.—OLIVER B. CARTWRIGHT, Madison; JAMES J. WITHERS, Mooresville.

Lowndes County Medical Society.—ANDREW BOWIE, Benton; EDWARD CLAYTON DUNKLIN, Collerine.

Madison County Medical Society.—JOSEPH J. MACON, Hays' Store; DAVID H. MCLAIN, Mayesville.

Marengo County Medical Society.—HENRY C. DUGGAR, Van Dorn Station.

Montgomery County Medical Society.—WOOTEN M. WILKERSON, Montgomery

Morgan County Medical Society.—S. L. ROUNTREE, Hartselle.

Perry County Medical Society.—WILLIAM S. JOHNSTON, Hamburg; JOHN MILTON SADLER, Uniontown.

Pickens County Medical Society.—WILLIAM V. EZELL, Carrollton.

Randolph County Medical Society.—WILLIAM H. BLAKE, Blake's Ferry.

Shelby County Medical Society.—J. R. MORGAN, Calera; J. H. WILLIAMS, Columbiana.

St. Clair County Medical Society.—ROBERT F. MCCONNEL, Steel's Station; JAMES M. MCLAUGHLIN, Springville.

Sumter County Medical Society.—R. B. CARR, Gaston; HENRY BASCOM WARD, Cuba.

Tallapoosa County Medical Society.—WILLIAM M. GAY, Davidson; GEORGE WASHINGTON VINES, Dadeville.

Tuskaloosa County Medical Society.—JAMES L. WILLIAMSON, New Port; B. LEON WYMAN, Tuskaloosa.

Walker County Medical Society.—WILLIAM L. GRAVLEE, Jasper; NEWTON B. HANEY, Jasper.

Thirty-one counties represented by forty-six Delegates.

The counties of Conecuh, Crenshaw, Macon, Pike and Wilcox, sent up their Annual Reports, as required by Article 68 of the Constitution, but failed in representation.

The county of Bibb failed both in representation and reports.

The following Health Officers were present: Drs. Joseph Bevans, Gadsden, Etowah county; James A. Goggans, Alexander City, Tallapoosa county; John R. Hoffman, Athens, Limestone county; Samuel H. Hill, Carrollton, Pickens county; Samuel M. Hogan, Union Springs, Bullock county; James B. Luckie, Birmingham, Jefferson county; James Y. Nesbit, Jacksonville, Calhoun county; John A. Pritchett, Hayneville, Lowndes county; James P. Rorex, Scottsboro, Jackson county; Samuel P. Smith, Prattville, Autauga county; Robt. D. Webb, Livingston, Sumter county.

The following physicians were present, and registered as visitors:

J. C. Abernethy, Birmingham, Jefferson county; J. S. Boyce, Clinton, Greene county; R. M. Cunningham, Wetumpka, Elmore county; James W. Crump, Steel's Depot, St. Clair county; Harden P. Cochrane, Birmingham, Jefferson county; S. H. Estelle, Blount Springs, Blount county; G. W. Foster, Stevenson, Jackson county; Henry T. Heard, Birmingham, Jefferson county; William Hester, Tuskaloosa, Tuskaloosa county; W. R. K. Johnson, Pelham, Shelby county; J. F. Kendricks, Chepultepec, Blount county; Nathan Miller, Birmingham, Jefferson county; D. S. Moore, Wynnville, Blount county; D. D. Oates, Ogee, Blount county; John W. Pearce, Oxford,

Calhoun county; Dunklin Pierce, Benton, Lowndes county; E. Powell Riggs, Birmingham, Jefferson county; Henry N. Rosser, Birmingham, Jefferson county; A. S. P. Smith, Knoxville, Greene county; C. A. Wilkerson, Scott's Station, Perry county; W. W. Wilkerson, Marion, Perry county; Henry J. Winn, Birmingham, Jefferson county; W. S. Young, Decatur, Morgan county—23.

Senior Counsellors, 18; Junior Counsellors, 32; Delegates, 46; Health Officers, 11; Visiting Physicians, 23—Total, 125.

Ex-Presidents John J. Dement, of Huntsville; Edward D. McDaniel, of Camden; Robert D. Webb, of Livingston; Job Sobieski Weatherly, of Montgomery; were present, and occupied seats on the rostrum.

There were present of the Board of Censors and Committee of Public Health: Jerome Cochran, Senior Censor, of Mobile; John Jefferson Dement, of Huntsville; Mortimer Harvey Jordan, of Birmingham; Clifford Daniel Parke, of Selma; Benjamin Hogan Riggs, of Selma; Job Sobieski Weatherly, of Montgomery.

The Association was called to order by the President, Dr. Clifford D. Parke, of Selma, at 12 o'clock, noon.

The exercises were opened with prayer by the Rev. John Walker Newman, of the Methodist church.

After which, Dr. Henry N. Rosser, of the Jefferson County Medical Society, in behalf of the Committee of Arrangements, delivered the following

ADDRESS OF WELCOME.

Mr. President, and Fellows of the
Medical Association of the State of Alabama:

To-day, in behalf of the Jefferson County Medical Society, it is with pleasure that I welcome you to a second visit to our progressive city. When you were with us before, Birmingham was an inconsiderable town, known only in its vicinage, but to-day her incorporation proclaims her a city, and her unprecedented enterprise has given her an important place among the producing centres of the Union. With us, I know you rejoice at the success of this favored portion of our State.

We feel complimented by your presence on this important occasion, believing, as we do, that the unity of thought, of men laboring in a common cause, tends to that perfection which can be only attained by intercourse one with the other. You are representatives of medical thought from dif-

ferent parts of the State, and an integral part of a vast net-work of similar associations, culminating in a national organization, embracing every portion of our widely extended confederation. Thus associated, you become a power in the land for incalculable good to your fellow men.

It has been a favorite thought with me, after taking a retrospective view of our noble profession, and noting its rapid strides from ignorance and superstition toward perfection, thus inaugurating a rational mode of the practice of medicine, that the day will come when no disease, however complicated or malignant, will be beyond the control of the intelligent physician, and no death will be registered until nature has been requited, and the worn-out machinery of man's organism needs remodeling for a different and nobler sphere. This happy era cannot possibly be ushered in in our day, but these annual meetings are an earnest that a united effort is being made toward the goal of perfection; and the day will most assuredly come when the science of medicine will be a monument, as it were, of adamant to the success of the untiring labors of the workers in the medical profession.

Feeling confident that this meeting will be an onward step in your undertakings, fraught with good to the members of the association, and through them the profession at large, we again cordially welcome you to our midst.

Hon. O. A. Lane, Mayor, in behalf of the citizens of Birmingham, delivered the following

ADDRESS OF WELCOME.

Mr. President, and Gentlemen of the
Medical Association of the State of Alabama:

With more than ordinary pleasure do I supplement the cordial greeting you have just received with a greeting not less hearty from the city. This would be to me a grateful duty at any time, or on any occasion; for, in my estimation, of all the gold and silver threads running through the warp of society, perhaps none give the fabric a more pleasing hue than that of hospitality. Without this warm and genial flow of social spirit, the proudest mansion seems as cold and cheerless as an iceberg in the frigid zone, while its presence spreads through the humblest cottage the beauty and fragrance of a rosebank in the month of June. The city, town or hamlet, unbound to the outside world by this kindred tie, has no gate-vein to commercial greatness, is on the seaboard town without a harbor, and must languish and die of inanition. As attrition keeps machinery bright and free from rust and canker, so social contact with our fellows brightens the intellect, drives out corroding care, sweetens the disposition, and dispels the murky atmosphere that settles around secluded lives.

Birmingham possesses this kindred spirit in a marked degree, and, possessing it, delights to indulge it. She numbers among her sons and daughters citizens from almost every nation and every clime. There is no county in the State unrepresented here; and perhaps there is no State or Territory

in the American Union that has not added its quota to swelling our population. So, let the "stranger within our gates" come from what point he may, he is apt to meet some one here from his native land or adopted section. This being true, and a genuine fellow feeling pervading our community, we are naturally drawn to our visitors.

With conditions so propitious, is it strange that I, as the representative of Birmingham, declare myself happy in the privilege of throwing wide open the gates of the city to a body so distinguished as yours? The hearts of our people always pulsate warmly for the members of your profession. In the city's darkest hour—when the deadly visitation of cholera made the place little better than a charnel house—when crape hung on every door, and every breath of the living was a sigh for the dead—our local practitioners stood bravely to their posts, and illustrated the heroic manhood of their profession by courting death in wooing duty. And in later years, even in recent months, when epidemics and contagions threatened to desolate our city, as was the case with some of her sister cities, your local representatives stood on the watchtowers of medical science, kept the signal fires brightly burning, and proved potent factors in barring out the dread diseases and averting the impending dangers.

A physician's life is one of peculiar hardship and trial. His skill must be exercised in the gloom of the sick room, where pain and sorrow hang like a pall before him. He has no applauding senates or shouting multitudes to cheer him on in the path of duty. Alone, or surrounded by the grief-stricken and helpless, he puts forth his skill and learning as a barrier between life and death; and, too, he must endure hardships of no trifling nature. He must breast the wintry storms and face the sweltering sun. I have seen them leave cosy rooms and blazing fires to go out in sleet and ice to visit hovels of the sick and helpless. I have seen them, without promise of fee or hope of reward (except the smiles of heaven), leave the bedside of their own loved ones, tossing in pain, to answer the call of paupers appealing for rescue from the jaws of death. I cannot well conceive of a more beautiful life than one of so much privation and self-sacrifice for the happiness of others. Your profession well deserves, as it enjoys, the confidence, respect, and admiration of the people.

I cannot but think your annual convocations must result in great benefit to yourselves and much good to the public. From the dull monotony of routine life, you meet to interchange new ideas, catch the magnetic inspiration of new hopes, and return to your labors with new zeal, each one to add his portion to the advancement of his calling. Our people are in full accord and sympathy with your motives, ideas, and labors. While here, do us the honor to consider yourselves the guests of our whole people. When not engaged in active duties, I trust you will find relief from your labors by views of our varied and extensive industries. The buzz of saws, the whirring of machinery, the blasts of furnaces, the sound of hammers, the ring of trowels, the whirling of trains, the stir of rolling mills, the clang of boiler shops, the hum of planing mills, the whizzing of factories, and the

din of foundries, to be heard and seen in our midst, will, I hope, awaken interest and give you pleasure.

Call at our business houses and visit our homes. On all hands, you will find a warm and hearty welcome.

THE ANNUAL MESSAGE OF THE PRESIDENT, CLIFFORD D. PARKE, M. D., OF SELMA,

President and Ex-Vice President; Grand Senior Counsellor, and formerly member of the Board of Censors, and Committee of Public Health.

Gentlemen of the Medical Association of the State of Alabama:

To-day we enter upon the second decade of the life of the Association under the control and direction of our new Constitution, and seeing so many very good reasons why it should prove profitable for a working and scientific body like ours to pause now and then by the way, take down the volumes of our Transactions from their shelves, and, like the prudent and successful merchant, proceed to take an account of stock, casting up the credit and debit columns of our labors and see how the balance-sheet stands, that I will ask you, by way of entering upon this work, to go back with me and pass in review the six consecutive years intervening between the reorganization of the Association at Selma in 1868, and the session held at Tuskaloosa in 1873, when the new organic law was enacted.

And during these six eventful years what do we find? A well appointed militia, it is true, composed of the very best material and representing every section of our State, but still only a militia, with all of its inefficiency and want of discipline; now and then, indeed, striking such powerful and giant blows as to challenge admiration, but wanting in that reliability, steady endurance and instinctive obedience to the word of command, inseparable from a well organized army of veterans.

With this splendid material ready to the hand of the master-builder, we luckily had in our midst the greatest medical organizer of the age, a gentleman so far in advance

of the spirit of the profession (whose traditions from time immemorial had ever allowed the largest license to its members), that I, with many others, was disposed to look upon the scheme as utopian, never dreaming that a building whose foundations were laid so broad and deep, and whose superstructure presented to the eye of the beholder so much of beauty and strength, could be reared, even by the wisest builder, out of the material at hand, but he, with the firm convictions which ever follow in the wake of genius, faltering at no discouragements, and only stimulated by opposition, year after year presented and defended his plan. At last, in 1873, after a close and careful scrutiny of its provisions, section by section, and not without some misgivings, even on the part of a number of those who gave it their support, he succeeded in securing its adoption by a two-thirds vote of the members present.

The very first session held under its control and direction stamped it with success; for I am sure there was not a gentleman present at the meeting of the Association held at Selma in 1874, who was not fully impressed by its energy and by its power. No laggard could remain on its rolls, every member was assigned his position, and no excuse could be accepted, did he fail to come up to the full measure of his duty. In short, gentlemen, instead of an unreliable and half disciplined militia, it found itself a well organized and powerful army.

Stepping off "as a giant to run his course" and fully conscious of its ability to protect itself, I am proud to be able to say, that it has become the unwritten law of the Association, that under no force of circumstances, will it ever ask legislation for itself, always and ever for the good and protection of the people and of the State—*nothing* for the profession *as* a profession. And let us see to it, gentlemen, that this traditional unselfishness, which has ever characterized the conscientious physician, shall never fail to command our respect and our support.

At the first two sessions held under the auspices of the

new regimè (those of 1874–5 at Selma and Montgomery), it stood so completely master of the situation and grasped the reins of control with such decision and command, as to dispel all doubt and put all opposition to flight.

To show how completely all distrust was driven from my own mind (as it is necessary to confess that I was one of the number, who honestly made the mistake of entertaining and expressing very decided views of the impracticability of the movement), it was my fortune to represent the Selma Medical Society, as one of its delegates, at both of these sessions, and on my return from the Montgomery meeting, it was made my duty to make a report of what I had seen of its proceedings and how it had impressed me. It is only necessary to quote the closing paragraph of the paper I presented, to show the radical change which had been wrought. It was in these words:

"I am sure there was no one, after my first reading of its constitution, could have been more opposed to the oligarchy, as I was pleased to call it, than myself; but I am free to confess, that the more of thought and study I have devoted to it, and the longer I have watched its workings, the greater meed of praise I am disposed to give its author; and still further, I have no hesitation in saying that if the medical gentlemen of Alabama will, with one accord, put their best energies to the work, and carry out its spirit to its legitimate ends, it will not only advance the material interest of the profession in this State, but will so commend itself to those who surround us, that, seeing its good works, they will go and do likewise."

And I am very sure that every other gentleman who had devoted any time to the study of its proceedings, had been driven to the same conclusions; for, as the result of its labors, it presented to the profession two magnificent volumes of Transactions, which would do honor to any medical organization of this or any other age; its eight hundred pages being replete with many learned and practical essays on various scientific and medical subjects, including ex-

haustive papers upon the epidemics of small-pox, cholera and yellow-fever, which had recently played such sad havoc in different sections of our State.

But above all, and beyond all this, it issued to the world through its Board of Censors, two masterly State papers on medical organization and the duties of the hour, which would have done great credit to the pen of one who had devoted his entire life to the study of the science of government.

And being so fully convinced of the necessity of keeping well before our minds a clear perception of the aims and objects of our organization, I will offer no apology for presenting to the profession the following extracts from these remarkable papers, for I am fully persuaded, that should every medical gentleman in Alabama make it a rule to devote a few hours each year to their study, and the constitution they are intended to explain, it would do much towards extending, strengthening and vitalizing the organization we are striving to perfect. And to properly appreciate the manly courage and bright hopes these papers breathe, we must remember the greedy swarm of vampires (in the person of the carpet-bagger), that swooped down upon the prostrate South immediately after the war, with whetted beak, but folded wing, they realizing but too well the fact, that the helpless victims upon whom they had come to feed, lay bleeding and crushed, requiring no gentle fanning to keep them submissive and quiet. These birds of ill omen, that had been sucking the life-blood of our people and making the name of government a synonym for plunder and robbery for years, were, at the very time these papers were written, far from losing hope that Alabama would, for years to come, furnish the theatre for a high carnival of plunder. But to the quotations I wish to present; they are in these words:

"If we look around us, we find at work everywhere in our unfortunate country, the agents of disorganization and destruction; wide-spread and paralyzing demoralization pervades all ranks and classes of our social and political com-

munities; the peculiar civilization which was slowly taking definite shape amongst us, has been broken into fragments by the tremendous revolution through which we have passed; and whether we will it or not, it devolves upon us, out of these fragments, to build up another civilization for the times in which we ourselves live, and for the future which is to come after us. Whether we build wisely and well, or whether our work shall prove far otherwise than laudable and beneficent, depends very much upon ourselves. It is true, that many duties and obligations press upon us, and that the burden is hard to be borne. But shall we, for this reason, lose heart and hope and lie down by the roadside to perish like dumb-driven cattle, in ignominious apathy and despair? Nay, verily! We are men and we will bear ourselves like men, with manly courage and magnanimity. To fold our hands passively and take things as they come—this is not our mission; but to shape events for ourselves and to compel circumstances to pursue such a course as we may believe to be wisest and best.

"It is for this purpose that we have been endowed with intelligence and volition; that we have been made participants in the awful prerogatives of Jehovah, and have been associated with Him in the miraculous work of creation. Yea, verily! we are the builders of our own fortunes. What sort of a country we shall have; what sort of civilization shall be developed among us; what sort of a profession ours shall be—all these depend upon the wisdom with which we make our plans, and the resolution and energy with which we push them into execution—out of the region of speculation into the region of accomplished facts. All in fact depends upon this—with what purpose we work and under what direction. How full of philosophic thought are these lines of Emerson:

'The hand that rounded Peter's dome,
And groined the aisles of Christian Rome,
Wrought in sad sincerity;
Himself from God he could not free;
The conscious stone to beauty grew;
He builded better than he knew.'

"So shall it also be with us, if we also work in sad sincerity, we shall build better than we know. But if we act under the influence of petty passions and selfish ambitions, then, verily, shall we find that we have some dragon's teeth which will spring up into armed men and destroy us.

"As men, we owe duties and obligations to our families and our friends; as citizens, we owe duties and obligations to the State in which we live; as physicians, we owe duties and obligations to the profession we have chosen. Let us see to it, that in all the relations of life we do our duty. It is more the fashion now-a-days, to speak about rights and privileges than about duties and obligations, and this is one of the signs of the degeneracy of the times, but for all that our great Confederate leader was right when he said, 'Duty is the sublimest word in the English language.'

"Social and political duties and obligations lie outside our province; and we shall therefore confine ourselves to the consideration of our duties and obligations as members of the medical profession and of the Medical Association of the State of Alabama.

"The wide-spread demoralization of which we have spoken, pervades all ranks of our profession, and we need not stop to prove it, it is seen and known and regretted of us all. The profession is crowded with incompetent men, and other imcompetent men are continually gaining admission to its ranks. Shall this state of affairs be allowed to continue? Shall the profession be allowed to go from bad to worse indefinitely? We all agree that this ought not to be so; that it is an evil that is constantly increasing, and that something ought to be done to put a stop to it. But up to this time the question: How shall it be stopped? has received no practical solution. But are we, therefore, to lose heart and hope and fold our hands with the apathy which is born of despair? Nay, verily, a thousand and a thousand times, no!

"We have no hesitation in saying, that the medical profession is fully able to bring about a reformation of all the evils from which it suffers. But this consummation, most

devoutly to be wished, cannot be accomplished by wishing—cannot be accomplished either by means of paper resolutions and grand eloquent speeches—can, indeed, be accomplished only in one way, namely, by wise and resolute work, and by thorough organization and concert of action among the members of the profession.

"To construct out of the scattered members of our profession a powerful organization, and through this organization to secure concert of action and the prevalence of wise and prudent counsels, this is the mission of our Association.

"It is fitting that this mission of ours should always be borne in mind, so that we may always appreciate our obligations and our responsibilities—so that we may see clearly what our duty is and pursue it with unwavering resolution—so that each one of us may always remember that it is not for his own advancement that he is to labor, but for the advancement of the honor, dignity, and influence of the profession of medicine.

"It is also well that we should understand further, that the primary and principal object of our association is not the cultivation of the science and art of medicine. True, this is a matter not to be neglected, and incidentally we hope to accomplish something in this direction also, but it is not this which we have chiefly at heart. Studies of this sort might, perhaps, be pursued quite as profitably, and much less expensively at home.

"We will appreciate most adequately the real character of the Association, if we regard it as a medical legislature, having for its highest function the governmental direction of the medical profession of the State; while its other functions, important as they may be in themselves, in comparison with this, of quite subordinate rank.

"It will not be amiss here to quote that Article of our Constitution, namely, the third, which relates to the objects of the Association. It is in these words:

ART. 3. 'The objects of this Association shall be to organize the medical profession of the State in the most

effective manner possible; to encourage a high standard of medical education, and regulate the qualifications of practitioners of medicine within the State; to promote professional brotherhood and encourage a high standard of professional ethics; to combine the influence of all the medical men in the State so as to secure by legislative enactments their own legitimate rights and privileges, and the protection of the people against all medical quackery and humbug; to encourage the study of medical botany, medical climatology and medical topography of the State; to secure careful and reliable accounts of all the endemic and epidemic diseases of the State; in a word, to watch over and protect, encourage and aggrandize all the interests of the medical profession of the State.' "

Here end the quotations. And now, by way of parenthesis, allow me to say just here, that were I the framer of our Constitution and the author of these papers from which the extracts I have just read have been taken—even though I had accomplished no other work in life, save this, I should feel that I had not lived in vain; that I had made a deposit in the savings bank of the advanced workers and thinkers of the day, which would entitle me to draw on posterity for a kindly remembrance; and mark my word for it, gentlemen, the draft would not be dishonored.

But I must hasten on, for I find that should I dwell upon each item found in the credit column of our account to the extent its merits deserve, this message would grow into proportions far overstepping the bounds prescribed for matter presented to the Association; then I will ask your indulgence only so long as may be necessary to give a rapid general outline of the work which has been accomplished during the nine years we have been acting under the control and direction of the new Constitution.

And I will invite you to enter upon this rich and fruitful field by first presenting the "incidental" which has grown out of the "primary and principal object we have chiefly at heart," in building up and perfecting our organization.

On entering upon this investigation the first objects which strike the eye, are commanding volumes of Transactions, to which we can point the medical world with commendable pride, knowing full well that, on their very first pages, can be shown the messages of our presiding officers and the addresses of our orators, which, while they may not bear off the palm, certainly compare favorably with those of any medical organization of the day. And if we carry our investigation into the body of these volumes, besides numerous scientific essays on various subjects, there will be found practical and exhaustive papers on all the different branches of medicine, so complete, indeed, that should I encounter a gentleman about to enter upon the practice of medicine in Alabama, even though his library should fail to contain a solitary text-book, I would place these volumes into his hands with the confident assurance that of those diseases with which he would most constantly and daily come in contact, the surgical accidents which would most frequently demand his skill, and the epidemics it might be his misfortune to encounter, were here fully described and learnedly discussed, only requiring at his hands a careful study of their contents to give him the most advanced and best exposè of their causes, symptoms, pathology, and treatment. So then, gentlemen, it seems, indeed, "we have accomplished something in this direction also," and the Association has every reason to be satisfied with the substantial progress it has made in this branch of its labors.

And now having examined, thus hastily, the "incidentals" which, indeed, constitute the whole work of all other medical organizations, we will enter upon that feature of ours, which is peculiar to itself, namely, the one which constitutes it a medical legislature.

And realizing but too fully the fact that the Board of Censors, with our ever vigilant and laborious Senior Censor at the head—a gentleman whose interest in the advancement of the power and influence of the Association never flags—whose anlytical mind grasps every proposition for its sup-

posed good and sifts it to its very first principles, and whose judgment seems indeed infallible when brought to bear upon every subject which affects its progress and dignity. In view of these facts, it would seem, indeed, the height of folly on my part to attempt to suggest any line of policy to be pursued by the Association in the future, so when I remembered the time which elapsed, even after I had the honor of a seat in the Board of Censors, before the full scope involved in the aims and objects of our organization were at all appreciated by me, I felt that could I succeed in saying anything which might induce the members of the Association to devote more of thought and study in this direction, and through them to reach the worthy members of the profession who are still outside of our pale, I should have accomplished the only good I felt myself at all competent to undertake, and therefore, my message attempts this object alone; and now, after asking your indulgence for this digression, which I felt was my due, we will enter upon the examination of this peculiar feature of ours.

The first and central figure which demands attention is the Board of Censors, the body that has in its keeping the care and oversight of every interest connected with the Association, including the executive, judicial and advisory departments, subject alone to a majority of the College of Counsellors, and to show how wisely and well every interest committed to their care has been met. I can call to mind no instance where a recommendation of theirs has failed to receive a unanimous indorsement, yet when we remember the close and careful scrutiny given to every recommendation before being submitted, it would, indeed, be surprising if the result was otherwise.

But let us see what has been accomplished. Forty-one county societies have been granted Charters, and it is through these local organizations that most of the effective work is to be done. We have every reason to be satisfied with the advance which has been made, especially when we take into account the medical status existing in most of the

counties of our State, and that the Board of Censors have wisely determined that none but the very best material shall be accepted, feeling that it is manifestly better that charters be withheld from those county societies which lack the strength and will necessary to assuming all the responsibilities involved, knowing full well that *time* and the law to regulate the practice of medicine in Alabama will bring about the reformation desired.

And, besides extending our power and influence by incorporating these county societies, we have succeeded in securing the passage of the following laws by the State Legislature:

1. The law constituting the Association the State Board of Health.

2. The one providing the means for a salaried Health Officer, and carrying out the health laws of the State.

3. The law to regulate the Practice of Medicine in Alabama.

4. The law for the collection of Vital Statistics.

And since we, as a body, have assumed the grave responsibility of seeing that these important laws are properly executed, I do hope that every medical gentleman in Alabama will realize the fact that he has a direct personal interest in the matter, apart from the Association's pledge for its success, and will be found doing his whole duty in the premises, and then we can rest assured that every possible difficulty involved in this important trust will disappear like the mist of the morning.

So then, gentlemen, when we call to mind the amount of labor which appears on the surface in the shape of the full and exhaustive reports from the Board of Censors—which is certainly the most valuable and prominent feature of the last nine volumes of Transactions—and add to this the large expenditure of earnest work which would necessarily arise in attending to the innumerable details connected with securing the passage of these laws and putting them into operation, and then note the further fact that much the

larger portion of all that has been done, bears the footprints of one commanding mind, we can form some conception of how much can be accomplished by an earnest worker when his whole heart and soul are fully enlisted in the success of an undertaking, and only serves to convince me more fully than ever of the truth of that encouraging and inspiring thought, that when one of the advanced thinkers of this world has undertaken a great and good work, and after years of toil the work is done, he can always look back and have the gratification of finding that he has indeed "builded better than he knew."

And now a few words to the younger members of the profession and I am done, and will lay down my premises by stating, that while I am one of those who believe that when the great I Am said to Adam in the garden of Eden, "In the sweat of thy face shalt thou eat bread," He intended and did pronounce a curse upon him and his seed forever, but surely no one can doubt, that like everything which emanates from that great but beneficent Being, He at the same time to those of his creatures who submissively and cheerfully take up the burden, attached thereto a reward which brings to mortals more true happiness a hundred fold, than can be found among the countless thousands who are striving to evade the penalty.

Did it ever occur to you, that when one of the advanced workers and thinkers of this world, after years of toil and rack of brain, has at last succeeded in evolving out of nature's great storehouse, some hidden principle which will confer countless blessings upon mankind, and which seems, indeed, to link him with Jehovah in the great work of creation, what a flood of happiness must flow in upon that man's soul. To my mind, the plaudits of the multitude as they hail the bloodstained warrior when he returns in triumph, flushed with victory and freighted down with the spoils of war, pales into nothingness in the comparison.

And let us remember that this is but a degree in the scale, and that every man who has accomplished a good work in

his day and generation, however humble that work may be, has wrought out for himself its full equivalent of reward, for, indeed, this law is as eternal and unchangeable as the Almighty Being who gave it force.

Then, gentlemen, you who have chosen medicine as your calling in life, owe a duty to the profession of your choice, and if the premises I have laid down be correct, your duty well performed will most assuredly bring its full recompense of reward, and while I insist upon it that you do your whole duty to your State, to your family and yourself, you must not forget that other duty which is pressing upon you, viz: "To labor for the advancement of the honor, dignity and influence of the Profession of Medicine."

Our great Architect and Master builder has presented the plan of a Medical Temple, which, like all the commanding structures of earth, can not be completed in a decade, but the Master workmen who have charge of the building, are exercising the utmost caution, in seeing that none but the very best material shall enter into its walls, wisely judging, that it is manifestly better that the work occupy a longer time than that inferior material be used in its construction

And seeing so clearly the necessity of securing a continuance of this wise and prudent oversight of every interest involved in our grand undertaking, induces me to make this appeal to the younger members of the Profession, because, in the course of nature, the great work which has been so wisely and auspiciously begun, must fall upon your shoulders in a few short years, and to secure the fruits of this grand legacy, it is necessary that each one of you "quit yourselves like men, be strong," take up and carry on the good work, adding stone to stone, until the structure shall rise into such power and influence for good, that it will be felt and acknowledged, not alone by every member of the medical profession of Alabama, but by every one of her citizens as well, for while even now, we are gathering fruits into our garner, which but a few years ago would have been thought impossible, still we must remember, that the grand

and abundant harvest, which will most assuredly be ripe for the sickle in the future, can be realized in no other way than by wise and resolute work, carried on under the direction and control of a profession that is true to itself.

We may, indeed, in the most beautifully rounded periods, ring all the changes upon "Noble Profession," "High Calling," "Good Samaritans," and all that, and when clothed in poetical imagery and elegant language, it does in truth steal over and soothe the delighted senses like the melody of sweet music, and yet, forsooth, the profession has been but too long striving to satisfy its natural cravings for a deeply felt want by this placebo; but for all that, it will find at last, that none but a Demosthenes, who by his powerful phillipics, can arouse men to go out with him to fight against Phillip, can do aught to bring about the grand results for which we are striving; for indeed, it is only by associated effort and honest everyday work, wisely directed, that a body like ours can hope to realize a satisfactory harvest, properly assert itself, and so impress the world by which it is surrounded, that it will be compelled to concede the fact that it is a power in the land.

And it is also well to remember in this connection, that while mankind are but too ready to lay at the feet of the powerful even more than they ask or expect, on the contrary, the weak may consider themselves fortunate if they receive at their hands even the questionable tribute of commisseration and pity, for it is certainly opposed to every principle of human nature to bestow the smallest share of consideration or respect in that direction.

But does any one ask, "Is the work so great that it will require the coöperation of every medical man in Alabama to secure its success!" Thank heaven, we can answer, no! for we all unfortunately remember, that drones are to be found in every hive! and were it necessary that each man must do his share of the work, we would have to give it up in despair! but indeed, it is only necessary to secure the hearty coöperation of a few earnest laborers in each county

of our State to carry on and consummate the grand undertaking.

But while this is true, why should the burden of building a Temple for the advancement and regeneration of the Profession be left in the hands of a few when every man, who deserves a place in our ranks, has a part which it is his bounden duty to perform, for certainly he is left without excuse; for we all know that it is the busy members of the profession who always find time to respond most promptly when duty calls, and in an undertaking like ours there is a place exactly suited to every man's capacity, and every grade of talent from the lowest to the highest can be utilized, and none can fail to find his appropriate work if he but has the will; for, surely, each one of us can go out among the people and teach them that we ask nothing more at their hands than our legitimate rights and privileges; that our interest and theirs should never come in conflict; that every law passed at our instance is more for their protection than for our own; and to convince them of this truth, it is only necessary to point to the laws which have already been passed, and show them that the only object of the State and County Boards of Health is to learn them the laws of health and disease—to give them timely warning of the approach of the pestilence, and protect them when the dreaded destroyer has invaded our borders.

That the law to Regulate the Practice of Medicine in Alabama seeks alone to relax the grasp of the ignorant and incompetent practitioner; and surely it is wiser, even should the alternative be presented, to trust to the unassisted powers of nature rather than place their lives in the hands of these ignorant and incompetent pretenders.

That the law for the collection of Vital Statistics, among its other benefits, is to show the outside world, that Alabama, so far from being a "graveyard," will in point of health compare favorably with any section of our common country, and by demonstrating this fact, induce brain, capital and muscle to take up their abode among us and assist in developing the grand resources of our State.

And when this work is done, which, indeed, can be so easily accomplished if every one interested will but do his duty, we can go up to the Temple, bearing in our hands these stones of good will and coöperation on the part of the people and lay them at the feet of the Master workmen, with the confident assurance that no other material which will enter into its walls, will do more to strengthen and hasten on the good work.

But should any man shrink from entering upon this work of educating the people, surely he cannot plead inability, when it becomes his duty to carry up to the Temple a hod filled with the mortar of good-will and encouragement, and when he lays his burden at the feet of the master workmen, he can be encouraged by remembering that while this cement of professional brotherhood may not occupy so conspicuous and commanding a position, it will add as much as the stones themselves to the strength and durability of the structure.

And surely we have gentlemen in every county of our State, who are endowed with executive and administrative ability, and who will be willing to devote the time and labor necessary to building up and strengthening the societies that are already in existence, and see to it, that in those counties where there are none, so soon as the material shall evince the strength and will requisite for assuming all the responsibilities involved, they shall be seen taking their place in the line of advance, and when this work is done, I know of no laborers in our field who can approach the Temple with more assured confidence of valuable material furnished, when they lay down at the feet of the master workmen these beautiful corner-stones of strong and energetic County Societies, which are indeed to furnish the foundation stones upon which the whole superstructure is to rest.

And since it has been said or sung, that "Westward the star of empire takes its way!" and having reached Alabama in the person of a Sims in the past, surely the prolific womb of the future will bring forth many advanced workers and

thinkers from among the members of our Association, who will be seen coming up to the Temple, bearing proudly in their hands the memorial windows of scientific research and discovery, which will carry a flood of light into the many dark and hidden recesses of human disease and despair!

And when the walls are finished, let medical recognition be withheld from that man who fails to be seen coming up to the Temple, bearing in his hands the slate of professional brotherhood and high ethics, to cover in and protect the grand and magnificent structure, for we all can realize but too well the fact, that decay and destruction must necessarily follow, if the rains and storms of professional discord, engendered by petty jealousies and selfish ambitions, be allowed to spend their blighting influence within its walls.

And when at last the grand Medical Temple is complete, the ignorant and incompetent driven from its borders, a high professional standard attained, and we can then place each soldier of our army on that high platform occupied by the truly ethical and conscientious physician, assisting and encouraging each other, demanding from those who surround us a proper consideration, not only for our calling, but for the comfort and well-being of those dependent on us, what a mighty stride forward will be taken by even the very humblest in our ranks.

If with step to step, shoulder to shoulder, and shield locking shield—assisting and encouraging his comrade on either hand, throwing aside every petty jealousy and trampling them under foot—we can be seen marching in solid phalanx to achieve the best results for each and every member of our calling, who can doubt but that victory will be ours? Imagine, if you may, an entire country thus arrayed under a banner inscribed upon its every fold, protection and encouragement, and apart from the worldly success which must necessarily follow, the beauty, strength and symmetry shown forth by such a band, would be rightly adjudged a welcome return for any venture.

Gentlemen, we do not apprehend the immense force lying

dormant in the profession; for, on account of the ignorance with which it has been clogged, its want of organization, and the guerrilla warfare which has ever been carried on in its shattered ranks, it has been shorn of its mighty strength, and has never been able to assert its true dignity and power.

Even the educated portion of the community by which it is surrounded, is but too often found far in advance of a majority of the profession itself in making a true estimate of its worth, and each year's experience but confirms me in the belief, that the limit of its power and emoluments rest with itself alone.

The Revision of the Minutes of the Session of 1882.

The Revision of the Minutes of the session of 1882, being next in order, the Senior Censor called attention to the omissions following:

(1) The names of Drs. Dudley Samuel Brockway, of Coatopa, and Henry B. Ward, of Cuba, delegates from Sumter county, are omitted from the list of Delegates.

(2) No mention is made of the adjournment *sine die* of the Association, at the end of the session.

(3) The Colbert County Medical Society is omitted from the published Roll of County Medical Societies.

(4) The name of Dr. J. D. Stearns, of Geneva, Coffee county, is omitted from the Roll of the College of Counsellors.

(5) The name of Dr. John C. Lee, of Blount Springs, Junior Counsellor since 1877, should have been transferred to the roll of Senior Counsellors—[Secretary].

Dr. Cochran, therefore, moved that these omissions be noted by the Secretary and published in the order named, and it was so ordered.

The annual report of the Secretary, which here follows, was read and referred, under the rules, to the Board of Censors:

THE ANNUAL REPORT OF THE SECRETARY.

To the President of the Medical Association
of the State of Alabama:

SIR—I have the honor to submit this, my fifth annual report, embracing the work of this office for the past twelve months.

Respectfully,
T. A. MEANS, M. D.,
Secretary.

EXCHANGES RECEIVED.

1. Annals of Anatomy and Surgery, Vol. iii, No. 2. Brooklyn, New York, 1882.
2. A Brief Historical Sketch of the Origin and Progress of International Hygiene. By James D. Cabell, A. M., M. D., LL. D., of Virginia, 1882.
3. Arkansas—First Report of the State Board of Health. Little Rock, 1883.
4. Color-Names, Color-Blindness and the Education of the Color Sense in our Schools. By J. Joy Jeffries, A. M., M. D. (Harvard), 1882.
5. Connecticut—Proceedings of the Medical Society, Ninety-First Annual Convocation; New Series (Hartford), Vol. ii, No. 3. Fifth Annual Report of the State Board of Health, with Registration of Births, Marriages and Deaths (Hartford), 1883.
6. Delaware—Proceedings of the Ninety-Third Annual Session of the Medical Society (Rehobeth), 1882.
7. Georgia—Fifth Annual Report of the Board of Health of the city of Augusta, Ga., 1883. Transactions of the Medical Association (Augusta), 1883.
8. Illinois—Fourth Annual Report of the State Board of Health (Springfield), 1882.
9. Indiana—State Board of Health, Rules and Regulations (Indianapolis), 1882-1883.
10. Iowa—Transactions of the State Medical Society, Vol. v (Dubuque), 1882.
11. Kentucky—Fourth Annual Report of the State Board of Health (Louisville), 1882.
12. Louisiana—Small Pox and Small Pox Hospitals (New Orleans), 1883.

13. Maine—Transactions of the Medical Association, Vol. vii, Part iii (Portland), 1882.
14. Maryland—Fourth Biennial Report of the State Board of Health (Frederick), 1882.
15. Marine Hospital Service (Treasury Department)—Annual Report of the Supervising Surgeon-General for the fiscal year (Washington, D. C.), 1882.
16. Massachusetts (Pub. Doc. No. 1)—Fortieth Report of the Legislature, Relating to the Registry of Marriages, Births and Deaths in the Commonwealth (Boston), December 31st, 1881-2. (Pub. Doc. No. 17) Fourth Annual Report of the State Board of Health: Lunacy and Charity, with Statistical Appendix and Manual of Laws and Decisions (Boston), January, 1883. The Worcester Sewerage of Blockton River (Boston), 1882.
17. Michigan—Transactions of the State Medical Society (Lansing), 1882. The Tenth Annual Report of the Secretary of the State Board of Health (Ann Harbor), 1883.
18. Minnesota—Transactions of the State Medical Society (St. Paul), 1882.
19. Mississippi—"An Act to Regulate the Practice of Medicine in the State" (Jackson), 1882. Fifteenth Annual Session of the State Medical Society (Oxford), 1882.
20. Missouri—Transactions of the Medical Association, Twenty-First Annual Session (Hannibal), 1882. Hysterotomy in Malignant Disease; by Gratz A. Moses, M. D. (St. Louis), 1882.
21. New Jersey—Transactions of the Medical Society, 1882. Sixth Annual Report of the Board of Health, 1882.
22. New York—(Assembly Doc.) Second Annual Report of the State Board of Health (Albany), 1882. Transactions of the New York Academy of Medicine, 1883. Twelfth Annual Report of the City Registrar of Marriages, Births and Deaths of the city of Albany, 1882. Report on the Sanitary Examination of Potable Waters and the Significance of the Different Tests; reported from the Second Annual Report of the State Board of Health (New York), 1883. Suicide in New York City; by John T. Nagle, M. D., New York; read before the American Public Health Association at Savannah, Ga., November, 1881.
23. North Carolina—Transactions of the Medical Society (29th year) and North Carolina Board of Health (Concord), 1882.
24. Oregon—Proceedings of the Ninth Annual Meeting of the State Medical Society (Portland), Vol. ix, 1882.
25. Pennsylvania—Transactions of the Medical Society, Thirty-First Annual Session, Vol. xiv (Titusville), 1882. Report of the Board of Health of the city of Reading, 1882.
26. Rhode Island—Transactions of the Medical Society, Vol. ii, Part v (Providence), 1882.

27. South Carolina—Transactions of the State Medical Society, Thirty-Second Annual Session (Spartanburg), 1882.
28. Vermont—Annual Report of Health Officers of the City of Burlington, 1882.
29. Wisconsin—Sixth Annual Report of the State Board of Health (Madison), 1881.

On the 5th day of March, of the present year, I distributed 1,500 copies of the following circular:

THE MEDICAL ASSOCIATION OF THE STATE OF ALABAMA.

"Nos Etiam Speravimus Meliora."

OFFICE OF THE SECRETARY, Montgomery, March 1, 1883.

The Annual Session of the Medical Association of the State of Alabama for the current year will be held in the city of Birmingham, commencing on the second Tuesday in April (10th), 1883, and continuing four days.

Every County Medical Society is required by the Constitution of the Association to send to every Annual Session two (2) Delegates to represent its interest and wishes, together with the annual fee of one dollar for every one of its members, not a Counsellor or a Delegate. Members paying this fee will receive copies of the Transactions in return.

Every County Medical Society is also required by the Constitution and Ordinances of the Association, to send up an annual report in relation to current status and work; said report to contain the following items of information, namely:

First—The names of members and officers of the Society, together with the names of the colleges in which they were graduated, and their post-office addresses; and when any members have been admitted on the certificate of the County Board of Medical Examiners, the fact should be so stated.

Second—The names, colleges and post-office addresses of all regular physicians practicing medicine in the county, who are not members of the County Society.

Third—The names, systems of practice, and post-office addresses of all physicians in the county who are engaged in the practice of any other than the regular system of medicine.

Fourth—The names and post-office addresses of the medical practitioners of the county who, during the preceding calendar year, have died, or have discontinued the practice of medicine, or have moved from the county.

Fifth—The names, colleges and post-office addresses of all Doctors of Medicine who, during the preceding calendar year, have passed examinations before the County Board of Medical Examiners, with the results of the examinations, whether successful or unsuccessful.

Sixth—The names, post-office addresses and colleges, if any, of all others than members of the regular profession, who, during the preceding calendar year, have passed examinations before the County Board of Medical Examiners, with the results of the examinations, whether successful or unsuccessful.

Seventh—The written examination papers of all persons who, during the preceding calendar year, have passed examinations before the County Board of Medical Examiners, and these in the hand-writing of the person examined.

Eighth—The names and post-office addresses of all persons who, during the calendar year, have passed before the County Board of Medical Examiners, the examination preliminary to the study of medicine, with the results of the examinations, whether successful or unsuccessful.

The phrase "calendar year," is intended to mean from the first day of January to the last day of December, including the two days mentioned. But the list of officers desired is that of the current year.

Heretofore many of these reports have been made out in a very perfunctory and unsatisfactory way. It is earnestly hoped that more care will be taken hereafter to have them full and accurate. All reports in any way defective, will be returned for correction and amendment.

Individual members, or Boards of Censors, or County Societies, intending to prefer charges or complaints of any sort against other individual members, or Boards of Censors, or County Societies, will forward prompt notice of such intention to the Senior Censor, together with copies of the charges or complaints, so that the parties charged or complained of may receive due notice thereof, and have reasonable time to prepare their defense.

In the revision of the rolls, which is the special order of business for the last day of the session, County Medical Societies that have been gravely derelict or persistently negligent in the discharge of their duties under the Constitution of the Association and laws of the State, will be liable to censure or deprivation of charter; and all Counsellors who have failed to pay their annual dues, or who have failed to attend three successive meetings of the Association, will be dropped from the College of Counsellors.

All Counsellors of five years standing, who have not already done so, are requested to furnish photographs of themselves, of cabinet size, for insertion in the Book of Portraits.

The administration of the law providing for the collection of vital statistics and the supervision of the public health in the several counties of the State, has imposed upon the Association new, important and difficult duties; and in order that these duties may be properly discussed and understood, it is desirable that the approaching session of the Association should be numerously attended.

It is, therefore, hoped—

(1) That every Counsellor will consider it both a duty and a privilege to be at his post.

(2) That every County Society will come up to the full measure of its constitutional obligations by sending its full complement of Delegates.

(3) That all the County Health Officers will be in attendance for consultation with the Health Officer of the State.

(4) It is expected that regular reports will be submitted on the following subjects, namely: The Therapeutic Uses of Quinine in Alabama; Recent Progress in Gynecology; The Mineral Waters of North Alabama; Recent Progress in the Practice of Medicine; Some Observations on the Principles and Practice of Medicine within the last Fifty Years; Received Advances in Opthalmology.

A number of special reports will be presented in relation to the diseases prevalent in various parts of the State during the past year.

It is hoped that members will come fully prepared to engage in the discussions that will occur in relation to these several subjects, and also to take part in the Omnibus Discussion.

Officers of Societies will please take such steps as may be necessary to collect the fee of one dollar for every member.

The Transactions they receive in return is worth three times the money, and is a necessity to every one who desires to do his whole duty to the Association.

It is of the greatest importance that every County Society in the Association should have Delegates in attendance, and it is earnestly hoped that none of the Societies will fail to make such arrangements as will render their representation certain.

The Senior Censor requests that the Board of Medical Examiners will forward their examination papers to him in Mobile at once, so that they may be submitted to the Board of Censors in advance of the meeting of the Association.

T. A. Means, M. D.,
Secretary.

The charters granted the Medical Societies of Crenshaw and Jackson counties were duly executed by me and forwarded to their respective Secretaries, May 10th, 1882.

There are forty-two of the sixty-five counties in the State which have chartered Medical Societies, all in active affiliation with the Association.

The actual working membership of these several organizations represent numerically a strength of six hundred and eleven.

The Publishing Committee printed seven hundred and twenty copies of the Transactions, and distributed them as follows: To Counsellors, one hundred and seventy-six; to Delegates, fifty-seven; to Correspondents, nine; to Societies and Public Institutions, four hundred and twenty-three; to Exchanges, sixty-two; on hand, two.

The Omnibus Discussion has become one of the most

prominent and important features of the Association, and will continue so to increase in interest and value at each succeeding session. Those participating in the debate will greatly aid me by writing out in condensed form what was said by them, and forward the same to me within two weeks thereafter.

Failure in furnishing these discussions has been the chief instrument in delaying the earlier publication of the Transactions.

Secretaries of Societies, in making their annual reports, have been, as a rule, prompt to give answer to the questions laid down in my circular letter, yet fail in many instances to give the full name, post-office address, and graduation. These it is important to know, since we have undertaken to perfect a register free from blemish. Let us not fail.

All the records, namely, the "Book of the Rolls," "Book of Portraits," and "Book of the Dead," have been written up as far as it were possible, yet the negligence or refusal of some Counsellors to give the information required must be my excuse for not presenting them complete.

I am again indebted to the Senior Censor, Dr. Jerome Cochran, for valuable aid in keeping the complex machinery of the Association in order. It is of his own creation, and to him is due the thanks of every member. He lives, moves, and has his being in everything connected with it.

My term of office expires with the present session. In the selection of one to succeed me, I trust you will be wise in your choice. He should possess a full knowledge of the responsibilities attaching to it. He must know, also, that the position is not one of idleness, but of never-ending labor.

In the early life of this organization, little was required of the Secretary. Since then, it has become one of colossal proportions and of commanding influence for good throughout this commonwealth, and amongst the States.

The present growth and proportion is due in great part to the joint support of the profession, and to the systematic arrangements of its several divisions and subdivisions.

Now, that its intricate, yet beautiful machinery is understood, its value can scarcely be estimated. Its very complication denotes strength.

In addition to the position of honor held out by its provisions, another will be added at this session, namely, that of Grand or Past Senior Counsellor. To attain this, one must have been a member ten years. All of this will be explained by the Senior Censor in his forthcoming report.

In answer to many inquiries regarding reduced rates on railroads, I will state that it was intentionally omitted at the foot of my two last circulars, because the Railroad Commission had in themselves virtually fixed the rates per mile, thus making any reduction questionable. The reduced or fixed schedule of rates is about equal to the round-trip ticket of former years.

THE ANNUAL REPORT OF THE TREASURER.

WALTER CLARKE JACKSON, M. D., *Treasurer,*

In Account with the Medical Association of the State of Alabama, from April 11th, 1882, to April 10th, 1883.

TO DUES OF SENIOR COUNSELLORS.	Dr.
Abernethy, William Henry, M. D., Sedan, Wilcox county.....	$ 10 00
Anderson, William Henry, M. D., Mobile, Mobile county.....	10 00
Baker, Paul DeLacy, M. D., Eufaula, Barbour county.....	10 00
Baldridge, Milton Columbus, M. D., Huntsville, Madison county..	10 00
Bryce, Peter, M. D., Tuskaloosa, Tuskaloosa county.....	10 00
Cochran, Jerome, M. D., Mobile, Mobile county.....	10 00
Dement, John Jefferson, M. D., Huntsville, Madison county.....	10 00
Fournier, Edmund Henry, M. D., Mobile, Mobile county.....	10 00
Furniss, John Perkins, M. D., Selma, Dallas county.....	10 00
Gaines, Edmund Pendleton, M. D., Mobile, Mobile county.....	10 00
Gaston, John Brown, M. D., Montgomery, Montgomery county...	10 00
Godfrey, James Myers, M. D., Sumterville, Sumter county.....	10 00
Hogan, Samuel Mardis, M. D., Union Springs, Bullock county....	10 00
Hopping, Daniel Stiles, M. D., Letohatchie, Bullock county.....	10 00
Jackson, Robert Dandridge, M. D., Summerfield, Dallas county...	10 00

Jackson, Walter Clarke, M. D., Montgomery, Montgomery county.	$ 10 00
Johnston, William Henry, M. D., Selma, Dallas county	10 00
Jordan, Mortimer Harvey, M. D., Birmingham, Jefferson county	10 00
Ketchum, George Augustus, M. D., Mobile, Mobile county	10 00
Kumpe, George Ernest, M. D., Leighton, Madison county	10 00
Lee, John Cooper, M. D., Blount Springs, Blount county	10 00
Means, Thomas Alexander, M. D., Montgomery, Montgomery Co.	10 00
McDaniel, Edward Davies, M. D., Camden, Wilcox county	10 00
Mitchell, William Augustus, M. D., Eufaula, Barbour county	10 00
McKinnon, John Alexander, M. D., Selma, Dallas county	10 00
McKittrick, Adam Alexander, M. D., Evergreen, Conecuh county.	10 00
Michel, Richard Fraser, M. D., Montgomery, Montgomery county.	10 00
Parke, Clifford Daniel, M. D., Selma, Dallas county	10 00
Prince, Francis Marion, M. D., Jonesboro, Jefferson county	10 00
Pritchett, John Albert, M. D., Hayneville, Lowndes county	10 00
Reese, Augustus Jordan, M. D., Mobile, Mobile county	10 00
Ross, Francis Armstrong, M. D., Mobile, Mobile county	10 00
Riggs, Benjamin Hogan, M. D., Selma, Dallas county	10 00
Sanders, William Henry, M. D., Mobile, Mobile county	10 00
Sears, John William, M. D., Birmingham, Jefferson county	10 00
Seelye, Samuel Dibble, M. D., Montgomery, Montgomery county	10 00
Starr, Lucius Ernest, M. D., Camden, Wilcox county	10 00
Toxy, Caleb, M. D., Mobile, Mobile county	10 00
Weatherly, Job Sobieski, M. D., Montgomery, Montgomery county	10 00
Webb, Robert Dickens, M. D., Livingston, Sumter county	10 00
Winn, James Julius, M. D., Clayton, Barbour county	10 00
Total amount from Senior Counsellors	$ 410 00

TO AMOUNT OF DUES FROM JUNIOR COUNSELLORS.

	Dr.
Barclay, John Wyeth, M. D., Huntsville, Madison county	$ 10 00
Barklay, James Paxton, M. D., Eutaw, Greene county	10 00
Brown, George Washington, M. D., Pratt Mines, Jefferson county.	10 00
Brown, Pugh H., M. D., Troy, Pike county	10 00
Caffey, Hugh William, M. D., Lowndesboro, Lowndes county	10 00
Cason, Davis Elmore, M. D., Ashville, St. Clair county	10 00
Cilly, Phillip Noble, M. D., Lowndesboro, Lowndes county	10 00
Crow, Calvin Augustus, M. D., Moulton, Lawrence county	10 00
Cross, Benjamin Franklin, M. D., Decatur, Morgan county	10 00
DuBose, Wilds Scott, M. D., Columbiana, Shelby county	10 00
Fletcher, Richard Mathew, M. D., Madison Station, Madison Co.	10 00
Gaines, Vivian Pendleton, M. D., Mt. Sterling, Choctaw county	10 00
Gage, Frederick Fannin, M. D., Selma, Dallas county	10 00
Hayes, Robert Hughes, M. D., Union Springs, Bullock county	10 00
Herbert, Curtis Burke, M. D., Greenville, Butler county	10 00
Heustis, James Fountain, M. D., Mobile, Mobile county	10 00

Hoffman, John Richardson, M. D., Athens, Limestone county..	$ 10 00
Jay, Andrew, jr., M. D., Evergreen, Conecuh county.....	10 00
Jones, Capers Capehart, M. D., Snow Hill, Wilcox county.....	10 00
Lowery, Samuel Henry, M. D., Huntsville, Madison county.....	10 00
Kendrick, William T., M. D., Greenville, Butler county.....	10 00
Hendrick, Gustavus, M. D., Brundidge, Pike county.....	10 00
McAllister, William Thomas, M. D., Marion, Perry county.....	10 00
Mushat, John Patrick, M. D., Hayneville, Lowndes county.....	10 00
Morgan, Isaac DuBose, M. D., Eutaw, Greene county.....	10 00
Phillips, William Crawford, M. D., Selma, Dallas county.....	10 00
Purnell, William Thomas, M. D., Prairie Bluff, Wilcox county....	10 00
Peterson, Francis Marion, M. D., Greensboro, Hale county.....	10 00
Rorex, James Polk, M. D., Scottsboro, Jackson county.....	10 00
Robertson, Thaddeus Lindley, M. D., Oxford, Calhoun county....	10 00
Sanders, Charles Peak, M. D., Pleasant Ridge, Greene county....	10 00
Sholl, Edward Henry, M. D., Birmingham, Jefferson county.....	10 00
Smith, Samuel Parish, M. D., Prattville, Autauga county.....	10 00
Thigpen, Job., M. D., Greenville, Butler county.....	10 00
Thomas, James Grey, M. D., Mobile, Mobile county.....	10 00
Thetford, William Fletcher, M. D., Boligee, Greene county.....	10 00
Wall, Conrad, M. D., Forest Home, Butler county.....	10 00
Wright, Milton Roil, M. D., Gadsden, Etowah county.....	10 00
Total amount from Junior Counsellors.....	$ 380 00

TO AMOUNT OF DUES FROM COUNSELLORS ELECT.	Dr.
Brockway, Dudley S., M. D., Coatopa, Sumter county.....	5 00
Cross, William Syprian, M. D., Centreville, Bibb county.....	10 00
Franklin, Charles Higgs, M. D., Union Springs, Bullock county..	10 00
Goodwin, James A., M. D., Jasper, Walker county.....	5 00
Hawkins, Richard Nathaniel, M. D., Montevallo, Shelby county...	10 00
Hill, Samuel H., M. D., Carrollton, Pickens county.....	10 00
Kendrick, Joel C., M. D., Greenville, Butler county.....	5 00
Luckie, James Buckner, M. D., Birmingham, Jefferson county....	5 00
Moody, Joseph, M. D., Bridgeville, Pickens county.....	5 00
Sawyer, William T., M. D., Mobile, Mobile county.....	5 00
Shivers, Offa Lunsford, M. D., Newbern, Hale county.....	5 00
Sledge, William Henry, M. D., Livingston, Sumter county.....	5 00
Smith, Daniel E., M. D., Mobile county.....	5 00
Stovall, A. M., M. D., Jasper, Walker county.....	5 00
Tipton, Frank, M. D., Selma, Dallas county.....	5 00
Total amount received from Counsellors elect.....	$ 95 00

TO AMOUNT OF DUES FROM DELEGATES.

	Dr.
Abernethy, Burwell Gideon, M. D., Birmingham, Jefferson Co....$	5 00
Beard, Josephus S., M. D., Troy, Pike county.....	5 00
Brockway, Dudley S., M. D., Coatopa, Sumter county.....	5 00
Duggar, Hobart Cobbs, M. D., Van Dorn, Marengo county.....	5 00
Ezell, William V., M. D., Carrollton, Pickens county.....	5 00
Fountain, Henry T., M. D., Burnt Corn, Monroe county.....	5 00
Goodwin, Joseph A., M. D., Jasper, Walker county.....	5 00
Gautier, William Jones, M. D., Tuskegee, Macon county.....	5 00
Goggans, James Adrian, M. D., Alexander City, Tallapoosa county	5 00
Hester, William, M. D., Tuskaloosa, Tuskaloosa county.....	5 00
Hawkins, Richard Nathaniel, M. D., Montevallo, Shelby county...	5 00
Inge, Richard, M. D., Greensboro, Hale county.....	5 00
Jones, Joseph Harvey, M. D., Allenton, Wilcox county....	5 00
Kendrick, Joel C., M. D., Greenville, Butler county.....	5 00
Luckie, James Buckner, M. D., Birmingham, Jefferson county....	5 00
Moody, Joseph, M. D., Bridgeville, Pickens county.....	5 00
Miller, Martin Van Buren, M. D., Santley's Creek, Choctaw county	5 00
Riggs, E. Powell, M. D., Birmingham, Jefferson county.....	5 00
Sadler, John Milton, M. D., Uniontown, Perry county.....	5 00
Searcy, James T., Uniontown, Perry county.....	5 00
Sawyer, William T., M. D., Mobile, Mobile county.....	5 00
Shivers, Offa Lunsford, M. D., Newbern, Hale county.....	5 00
Sledge, William Henry, M. D., Livingston, Sumter county.....	5 00
Smith, Daniel Edgarly, M. D., Mobile, Mobile county.....	5 00
Stovall, Andrew McAdams, M. D., Jasper, Walker county.....	5 00
Thompson, Elias Benson, M. D., Marion, Perry county.....	5 00
Tipton, Frank, M. D., Selma, Dallas county.....	5 00
Vandegrift, William Franklin, M. D., Branchville, St. Clair county	5 00
Walker, James F., M. D., Weaver's Station, Calhoun county.....	5 00
Watkins, Isaac LaFayette, M. D., Union Springs, Bullock county..	5 00
Ward, Henry Bascom, M. D., Cuba, Sumter county.....	5 00
Webb, Henry Young, M. D., Eutaw, Greene county.....	5 00
Young, William S., M. D., Decatur, Morgan county.....	5 00
Total amount of dues from delegates.....$	165 00

TO AMOUNT OF DUES FROM MEDICAL SOCIETIES.

	Dr.		Dr.
Autauga.....$	9 00	Chambers.....$	10 00
Barbour.....	8 00	Chilton.....	11 00
Bibb.....	5 00	Choctaw.....	8 00
Butler.....	7 00	Conecuh.....	9 00
Blount.....	6 00	Dallas.....	22 00
Bullock.....	18 00	Etowah.....	7 00
Cullman.....	11 00	Greene.....	20 00

Hale	$ 10 00	Morgan	$ 10 00
Jefferson	11 00	Perry	18 00
Lawrence	8 00	Pickens	10 00
Lee	10 00	Pike	8 00
Limestone	8 00	Randolph	9 00
Lowndes	15 00	Shelby	5 00
Macon	10 00	St. Clair	11 00
Madison	11 00	Sumter	16 00
Marengo	8 00	Tallapoosa	6 00
Mobile	8 00	Tuskaloosa	12 00
Monroe	10 00	Walker	11 00
Montgomery	8 00	Wilcox	15 00

Total amount from Medical Societies ..... $ 399 00

TO DUES FROM MEMBERS.

	Dr.
McMahon, Fortunatus S., Courtland, Lawrence county	$ 1 00
Oliver, Hillary T., Georgiana, Butler county	1 00
Vandegrift, W. F., Branchville, St. Clair county	1 00
Total dues from members	$ 3 00

STATEMENT.

	Dr.
To amount from Senior Counsellors	$ 410 00
Junior Counsellors	380 00
Counsellors elect	95 00
Delegates	165 00
Medical Societies	399 00
Members	3 00
Total receipts	$1,452 00
Balance due Treasurer	17 22
	1,469 22

	Cr.
By amount dues on last year's account	$ 110 12
paid Barrett & Brown	1,076 00
expense Mobile session	40 70
salary of Secretary	100 00
salary of Treasurer	100 00
stamps, Secretary	25 00
stamps and stationery, Treasurer	10 00
Joel White's account	6 00
Total expenditures	$ 1,469 22

The following Counsellors have failed to pay their dues, viz:

Drs. Caleb Bliss Lampley, Senior Counsellor, 1875, Greenville, Butler county; John Thomas Broughton, Junior Counsellor, 1881, Greenville, Butler county; William Washington Wilkerson; Junior Counsellor, 1878, Marion, Perry coumty.

Dr. Wilkerson should have been dropped for non-attendance on three successive sessions, but the Association failed to do so. Hence his name appears on my list.

The Medical Societies of Crenshaw, Colbert and Jackson have not paid their dues.

All of which is respectfully submitted, with the accompanying vouchers.

WALTER C. JACKSON, M. D.,
Treasurer.

BUSINESS REPORTS.

Business reports from forty-two County Societies—six in excess of last year—were called and responded to in the following order. Referred, under the rules, to the Board of Censors.

Autauga County.—Report rendered and dues paid. Represented by one Delegate and one Counsellor. Society in good working order. Health officer present; efficient, but finds difficulty in collecting vital statistics. No examinations or certificates issued. No removals and no deaths. Membership, 9.

Barbour County.—Report rendered and dues paid. Represented by two Delegates. Health Officer reports activity in the discharge of his duties, but has difficulty in obtaining vital returns. Society in good condition. No examinations. Two removals. No deaths. Membership, 10.

Bibb County.—No report rendered, and no representation. Referred to the Board of Censors for investigation.

Blount County.—Report rendered and dues paid. Represented by one Delegate, one Counsellor and one visitor. Board of Health holds two meetings annually. Health Officer endeavors to do his duty, but receives little encouragement from his associates. Society reported to be in a healthy condition. No examination or certificate issued.

Three removals. Two dropped for non-payment of dues, and one retired from practice. No deaths. Membership, 12.

Bullock County.—Report rendered and dues paid. Represented by one Delegate and three Counsellors. The Secretary reports a decrease in membership of three—two by death and one by removal from the county—yet retains its interest and prosperity; holding meetings monthly with an average attendance of ten. The work of collecting vital returns, as reported by the Health Officer, becomes easier each year, and so soon as the system is better understood the records will be far more complete than now. The status of the Society is good, and the labor it has performed quite satisfactory. No examination. One dropped from the roll for non-payment of dues. One removed from the county and two deaths. There are no irregular physicians in the county. Membership, 18.

Butler County.—Report rendered and dues paid. No representation. Status of the Society good. Health Officer doing his best, but is discouraged, because of reported failures in collecting vital statistics. He promises better results when the importance of such records become better known. Two examinations for the practice of medicine—both passed and were granted certificates. No notification to colleges. One expulsion. One resignation. Two removals from and one into the county, and one death. There are no irregular physicians in the county. Membership, 19.

Calhoun County.—Report rendered and dues paid. Represented by two Delegates. The society is in better condition than ever before, and is increasing yearly in membership. The Health Officer was present and stated he was laboring faithfully to perfect the vital records of Calhoun county, but met with little encouragement, especially from those whom he expected most. In one or two years more he hopes to present better returns. Three examinations for the practice of medicine were made by the county board and certificates granted, and one refused. No notification to col-

leges. Two removals from the county. One discontinued practice, and one death. Membership, 15.

Chambers County.—Report rendered and dues paid. No representation and no report from Health Officer. One examination for the practice of medicine and certificate granted. One removal from the county and no deaths. No notification to colleges. No irregular practitioners in the county. Membership, 10.

Chilton County.—Report rendered and dues paid. Represented by one Delegate. Health Officer reported as doing all he can, but is discouraged. No examinations. One death. No irregular practitioners in the county. Report imperfect. Membership, 11.

Colbert County.—No report, and no representation. Referred to the Board of Censors. [This society was omitted by mistake of the Secretary, in the list of county societies last year; hence the report remains the same as published.] Membership, 11.

Choctaw County.—Report rendered, and dues paid. Represented by one Delegate and one Counsellor. No Health Officer present. Two examinations for the practice of medicine were made by the county board and certificate issued. Colleges not notified. No resignation. No removals. There are no irregular practitioners in the county. No deaths. Membership, 20.

Conecuh County—Report rendered and dues paid. No representation. No report from Health Officer. Status of the Society not known. Record imperfect. Membership, 8.

Crenshaw County.—Report rendered and dues paid. No representation. Secretary reports three removals from the county, and one certificate issued by the county board without examination. Status and work of the Society satisfactory. No report from Health Officer, and no deaths. Membership, 8.

Coosa County.—Report rendered and dues paid. Represented by one Delegate. [This county was granted a charter at the Birmingham session and is fully organized.]

Dallas County.—Report rendered and dues paid. Represented by one Delegate and five Counsellors. Health Officer absent, but is reported as doing his full duty in the matter of collecting vital returns. He lives in the county and calls the board of health together when he so desires. He finds the usual difficulty in collecting vital data from the profession as well as from midwives. Status and work of the Society reported good. One successful examination before the county board and certificate issued, and college notified. There were three removals from the county; two discontinued practice and no deaths. Membership, 24.

Etowah County.—Report rendered and dues paid. Represented by one Delegate and one Counsellor. Health Officer present reports the usual difficulty in collecting certificates of births and deaths. Is hopeful of better things next year. There were four examinations for the practice of medicine, and one rejection made by the county board, and colleges notified. There were three removals from, and one into the county. No death. Membership, 9.

Greene County.—Report rendered and dues paid. Represented by two Delegates, four Counsellors and two visitors. The Society is reported to be in a most flourishing condition in all matters pertaining to organization and work, but unmindful of the importance of collecting vital statistics. The Health Officer is much discouraged. There were three certificates granted for the practice of medicine, one after and two without examination. Colleges not notified. One removal and no deaths. Membership, 26.

Hale County.—Report rendered and dues paid. Represented by two Delegates and one Counsellor. The Society is active and holds monthly meetings with good attendance. The Health Officer does all he can to gather in returns of births and deaths; yet finds his labors almost fruitless. There was one successful examination by the county board, and certificate issued (College not notified), and one preliminary to the study of medicine. There are no irregular practitioners in the county, but one removal, and no deaths. Membership, 13.

Henry County.—Report rendered and dues paid. Represented by one Delegate. [This Society was granted a charter at the Birmingham session, therefore the report is not as perfect as it should be. SEC'Y.] Membership, 8.

Jackson County.—Report rendered and dues paid. Represented by two Delegates and one Counsellor. Health Officer present and reports his duties imperfectly performed, by reason of failure on the part of his assistants in collecting vital data. The society is healthy and in earnest. There were two additions to the membership, one successful examination for the practice of medicine, (College not notified), one removal and no deaths. No irregular practitioners in the county. Membership, 19.

Jefferson County.—Report rendered and dues paid. Represented by two Delegates and five Counsellors. Health Officer present and reports fair returns for his labors in collecting vital statistics. He makes regular monthly returns to the County Board of Health. There was one successful examination before the county board for the practice of medicine, and certificate awarded, (but no notice sent to College of graduation); two preliminary to the study of medicine, one to practice Homeopathy, and four rejections. Two were dropped for non-attendance and non-payment of dues; two removed from the county, and two resigned to engage in contract practice. One death. The Society reported to be in full accord with the Association, and working well. Has a membership of 23.

Lawrence County.—Report rendered and dues paid. Represented by one Counsellor. Secretary in his annual statement reports one removal from the county and one death. There were no examinations or certificates issued. Health Officer absent and no verbal report made of the work of his office. There are no irregular practitioners in the county. Membership, 21.

Lee County.—Report rendered and dues paid. Represented by one Delegate. There were no examinations and no certificates issued. One death. Imperfect. Membership, 12.

Limestone County.—Report rendered and dues paid. Represented by two Delegates and one Counsellor. There was one successful examination for the practice of medicine, but College not notified. One preliminary to the study of medicine, and one removal from the county. Health Officer present and states he has had some difficulty in obtaining vital returns. By dint of personal effort he has succeeded far beyond his expectations. Thinks if every Health officer in the State would put himself to work outside his immediate field of professional labor success would most assuredly follow. The Society is reported in fair working order. No deaths. Membership, 9.

Lowndes County.—Report rendered and dues paid. Represented by two Delegates and three Counsellors. Two examinations were made by the county board for the practice of medicine. Both passed and report sent in to colleges of graduation. Health Officer present and reports himself very zealous in the discharge of his duties. He is supported in his work by the County Board of Health, who takes an active part in matters pertaining to his office. Returns of births and deaths are satisfactory, and will improve year by year. Meetings are held monthly, and well attended. One moved into the county, and no deaths. Status of the society good in all respects. Membership, 23—four in excess of last year.

Macon County.—Report rendered and dues paid. No representation. The Secretary reports a full membership, but a manifest want of energy. No examinations and no certificates issued. Two deaths, and no removals. Report imperfect. Membership, 12.

Madison County.—Report rendered and dues paid. Represented by two Delegates and two Counsellors. Two certificates were issued by the County Board for the practice of medicine without examination. Two removals from the county, and two deaths. Notice to colleges not answered. Society reported in good working condition. No report from Health Officer. Membership, 15—five less than last year.

Marengo County.—Report rendered and dues paid. Represented by two Delegates and one Counsellor. There were four successful examinations before the County Board for the practice of medicine, and one rejection. Notice to colleges not answered. One removal from the county. No deaths. Health Officer present, and reports little progress in collecting vital statistics. This deficiency he attributes to the refusal on the part of the County Commissioners to make further appropriation to this office. Society numerically small, but active. Membership, 12—two in excess of last year.

Mobile County.—Report rendered and dues paid. Represented by one Counsellor. There were two examinations made for the practice of medicine by the County Board, and certificates issued. Notice to colleges not answered. Three removals from the county, and one death. Dr. Cochran, acting as representative for the county, reported the society in excellent condition and the Health Officer doing his duty, but, like all other health officers, finds it difficult to collect vital statistics. Membership, 25.

Monroe County.—Report rendered since adjournment, and dues paid. No representative, and no report from Health Officer. The Secretary reports two removals from the county. No examination and no deaths, and represents the society in fine working order. Membership, 13. This society having failed at the Birmingham session in representation, it was referred to the Board of Censors for investigation.

Montgomery County.—Report rendered and dues paid. Represented by one Delegate and two Counsellors. No examinations, and no certificate issued. One removal into the county, and one death. Health Officer absent. The Secretary reports the society in a very flourishing condition, and the harmony and good fellowship phenomenal. Meetings are held every Saturday night from October to July, and are well attended.

Morgan County.—Report rendered and dues paid. Rep-

resented by one Delegate. One member visiting. The society is stated to be in better condition than ever before. The Health Officer doing all he can to obtain returns of births and deaths, but meets with much indifference on the part of the people and his assistants. There were four successful examinations for the practice of medicine, and certificates granted by the County Board. Colleges not notified. No irregulars in the county. Two removals. No deaths. Membership, 19.

Perry County.—Report rendered and dues paid. Represented by two Delegates and one visitor. There were three examinations made by the County Board for dispensing and selling drugs, and certificates awarded. Notice to colleges omitted. Three removals from the county, and no deaths. Health Officer absent, and no report received from him. Status of the society good. Membership, 19.

Pickens County.—Report rendered and dues paid. Represented by one Delegate and two Counsellors. One examination by the County Board, and certificate issued to practice medicine. Notice to college omitted. No removals and no deaths. Health Officer present and reports his office, like those who have already made returns, beset with many difficulties. He foreshadows better times when the people become educated to the importance of these health records. The society is thoroughly organized and working well. Represents a membership of 19.

Pike County.—Report rendered after the session. No representative. The Secretary reports the society, although numerically less than last year, in a healthy condition. No examination. No removals, and one death. Imperfect. Membership, 10.

Randolph County.—Report rendered before the Birmingham meeting, and dues paid. Represented by one Delegate. The Secretary reports one successful examination for the practice of medicine. Notice to college omitted. One preliminary to the study of medicine. One removal from the county, and no deaths. The society is said to be in a

healthy condition. The Health Officer returns by proxy a report of his office. He finds difficulty in collecting vital data, and is much discouraged. There are no irregular practitioners in the county. Membership, 10.

Shelby County.—Report rendered and dues paid. Represented by two Delegates and two Counsellors. There were four successful examinations before the County Board for the practice of medicine, and certificates granted. Notice to colleges omitted. Three removals from and two into the county since last report. No deaths. The Health Officer represented as making every effort to obtain vital statistics, but met with poor success. The County Society is small, but energetic. Membership, 14.

St. Clair County.—Report rendered and dues paid. Represented by two Delegates and one Counsellor. The Secretary reports no examination. One removal from the county, and no deaths. The Health Officer represented as performing his duties faithfully, but meets with poor encouragement. Status and work of the society satisfactory. Membership, 11.

Sumter County.—Report rendered and dues paid. Represented by two Delegates and five Counsellors. The Secretary reported that the Board of Censors met with some embarrassment in the disposition of certain cases that came before them, he therefore wished to ask the Senior Censor a question. Two persons were practicing medicine in Sumter county without certificates, and had been notified to appear before the County Board, but failed to do so. Information was asked as to what course to pursue.

Dr. Cochran answered: "They should be notified to appear before the Board of Examiners, and then, if they refused, or neglected to do so, their cases should be brought before some county officer, justice of the peace, county court, or grand jury. The county court probably preferred."

There were three successful examinations by the County Board, and certificates granted to practice medicine, but no notice served to colleges of graduation. One as druggist,

and one to sell medicine. There were seven removals from the county, and no deaths. Health Officer represented as faithful and efficient, and has been rewarded with flattering returns. Society large, and fully alive to the interest of the profession. Membership, 23.

Tallapoosa County.—Report rendered and dues paid. Represented by two Delegates. The Society reported in a flourishing condition. Meetings are held quarterly and are always well attended. There were three examinations for the practice of medicine, and all granted certificates, but no notice served to colleges. The Health Officer being present reports himself alive to his work, but has trouble in getting returns of births and deaths. This, he thought, was due rather to the indifference of the people than to want of energy on the part of the profession or himself. On the whole, however, he was much encouraged to believe success will eventually attend his labors. There were three removals from the county and no deaths. There are no irregular practitioners in the county. Membership, 15.

Tuskaloosa County.—Report rendered and dues paid. One unsuccessful examination before the county board, and notice served to college of graduation. There were three removals from the county, and no deaths. No report from Health Officer. Status of the Society good. Membership, 26.

Walker County.—Report rendered and dues paid. Represented by two Delegates and two Counsellors. One examination was made by the county board; certificate refused, and college of graduation so informed. There were two satisfactory examinations made, preliminary to the study of medicine. The Health Officer reports the usual difficulties in collecting vital statistics, but is not discouraged. Society in healthy condition. Membership, 13.

Wilcox County.—Report rendered and dues paid. Represented by two Counsellors. There where three successful examinations made before the county board and certificates issued, but notice to colleges not answered. There were

two satisfactory examinations preliminary to the study of medicine. No removals. Two retired from practice. No specialists or irregular physicians, and no deaths. The Society is represented to be in fine condition and working well. Health Officer efficient, but is not flattered by the meager returns sent in. Membership, 16.

NOTE.—Reports of the status and work of the County Medical Societies, above given, were called on the second, third and fourth days, under the head of "unfinished business," but are here embraced in their order for convenient reference.

The Association adjourned at 3 o'clock, p. m., to meet in O'Brien's Opera House at 8 o'clock, p. m., to attend the Annual Oration of Dr. Edward H. Sholl, of Gainesville, Sumter county.

EVENING SESSION.

The Association met in O'Brien's Opera House at 8 o'clock, p. m. The Orator, Dr. Sholl, was introduced by Dr. Mortimer H. Jordan, President of the Jefferson County Medical Society, in a few brief words. His theme was "The work of the Profession," and occupied one hour in its delivery. The Opera House was filled to its utmost capacity with an appreciative audience, composed of the wealthy and fashionable of the city of Birmingham.

Association adjourned to 10 o'clock, a. m., to-morrow.

THE PROCEEDINGS OF THE SECOND DAY.

WEDNESDAY, APRIL 12.

The Association was called to order by Vice-President Godfrey, of Sumterville, Sumter county.

The President, Dr. Clifford D. Parke, declining to preside by reason of sickness, although present in the hall.

Under the head of unfinished business of yesterday, the Senior Censor moved that visiting members of County Societies, and other medical gentlemen present, be requested to register as such, and that they be accorded the privileges of the floor and debate during the present session.

Adopted.

The Secretary requested that the titles of all voluntary and miscellaneous papers to be presented to the Association, be left on his desk to be called in their regular order.

Dr. R. D. Webb, of Livingston, offered the following preamble and resolutions:

The Medical Association of the State of Alabama views with the deepest concern and regret, the action of the Medical Society of the State of New York at Albany in February last, in adhering to its former action in regard to the Code of Ethics; and although this Association, at its meeting held in Mobile in April, 1882, passed resolutions condemning the former action, yet feeling that this is a blow at the fundamental principles of all medical ethics, we deem it proper and imperative, upon the re-affirmation of this dangerous doctrine by the Medical Society of New York, that this Association again declare its views; therefore,

(1) *Resolved*, That as an Association, looking to the advancement of medical science, we can but regard this action as unnecessary and unwise, and calculated to create schisms in that noble body of men who have for so many centuries worked harmoniously together upon the basis of *unity of principle* and *community of thought*.

(2) *Resolved*, That as an Association acting through our delegates to the American Medical Association at Cleveland, we will offer every fraternal inducement to these erring brothers to return to their allegiance to what we regard as the basis of medical ethics; and in the event of failure in this, we will use all honorable means to exclude them from a participation in the benefits and privileges arising from the medical compact, based upon the

oneness in principle and thought, and, springing as it does, from a recognition of two scientific principles in medicine as opposed to special dogmas.

(3) *Resolved*, That as the ethical relation of the profession and the views—especially of the younger members—are greatly influenced by the tone of the medical journals, we can but condemn the course of other journals which have espoused this "new code" idea, and we discourage subscriptions to such journals by the members of this Association upon this ground, however worthy in other respects.

(4) *Resolved*, That as the views and opinions of the professors of colleges, whether of medicine proper, or of medical ethics, are generally received as *ex cathedra* by students, and by them carried into the ranks of the profession, we can but view with distrust those medical colleges where this view of ethics is openly inculcated, and hence, can not consistently recommend such colleges to the medical students of this State.

The foregoing resolutions were, on motion of Dr. Cochran, referred to the Board of Censors, with the request that they be reported on Thursday under the head of unfinished business.

Miscellaneous business being still in order, Dr. Andrew Bowie, of Benton, Lowndes county, offered the following:

(1) *Resolved*, That the leader of the Omnibus Discussion be appointed as early as possible after the meeting of the Association.

(2) *Resolved*, That the leader be required to select his subjects for discussion promptly, and turn them over to the Secretary of the Association as soon as practicable after their selection.

(3) *Resolved*, That the Secretary of the Association be required to notify all the members promptly of the subjects chosen for discussion by the leader.

These resolutions elicited some remarks from Drs. McDaniel, Webb and Cochran, but were finally adopted.

By Dr. Edward H. Sholl, of Greenville:

Resolved, That a committee of three be appointed by the President, one of whom shall be the Senior Censor, to consider the subject of providing a permanent home for the use of the Medical Association of the State of Alabama as its own property, and report the result of their conclusions to the next meeting of this Association.

Passed.

Committee—Drs. Cochran, of Mobile, Sholl, of Birmingham, and Dement, of Huntsville.

Dr. Samuel P. Smith, of Prattville, asked the Secretary if provision had been made for the care and proper preserva-

tion of the volumes belonging to the Association. The Secretary made answer and said that a suitable book case had been tendered the Association by the Medical and Surgical Society of Montgomery for its use; and that he had arranged the books on the shelves in their proper order.

Dr. Cochran, of Mobile, stated that it has always been the intention of the Association, at the proper time, to secure from the State a suitable room, or rooms, for the exclusive use of the Health Officer, where the archieves and other property belonging to the State Board of Health, which in fact is the State Association, might be kept in safety.

In the matter of omissions referred to by the Senior Censor, as having occurred in the minutes of the proceedings of the last session (1882), the Secretary explained that the names of Drs. Dudley S. Brockway, of Coatopa, and Henry B. Ward, of Cuba, both of Sumter county, did not appear on the roll of membership at the last session, nor did they file certificates of appointment as Delegates. Hence, he was not responsible for the omissions.

There being no further unfinished or miscellaneous business, the Secretary proceeded to call the schedule of the regular reporters, and in their order, viz:

(1) The Therapeutic uses of Quinine in Alabama; by Dr. Jerome Cochran of Mobile. Read and referred to the Committee of Publication.

(2) Recent Progress in Gynecology, by Dr. William H. Johnston, of Selma. Read and referred to the Committee of Publication.

(3) Some Observations on the Principles and Practice of Medicine within the past fifty years; by Dr. Charles Peake Sanders, of Pleasant Ridge, Greene county. Read and referred to the Committee on Publication.

Dr. Sanders, for sufficient reasons, requests that the publication of his paper be postponed. When in proper shape he desires to present it at the next annual session as a voluntary contribution.—COMMITTEE.

A communication was read by the Secretary from the Esmeralda Club of Birmingham, inviting the members of the Association to a complimentary hop, on Wednesday evening, April 11th. Dr. Jerome Cochran moved that thanks be tendered the Esmeralda Club, by the Secretary, for the compliment bestowed, but the meeting of the Association to be held this evening, at 8 o'clock, would forbid the Association accepting the same as a body. Passed.

The following communication was here read by the Secretary:

The State Woman's Christian Temperance Union of the State of Alabama, to the State Medical Convention, assembled in the City of Birmingham, April 10th, 1883:

Gentlemen—Realizing that in the great temperance reform which is now spreading over the whole country, through education on the evils of intemperance to soul and body, is of the greatest importance. And realizing, also, that the best way to reach the masses of the young people is through the public schools; and appreciating the extent and influence of your profession throughout the State, therefore, we, the ladies of the State Woman's Christian Temperance Union, now assembled in executive session in Gadsden, Alabama, do ask your Convention, now assembled in session, to recommend to our county boards and all district, county and beat superintendents, and to all teachers of public and private schools, the introduction and adoption in all the schools of the State, catechetical text books on Alcohol and Hygiene, in connection with their present curriculum.

Believing that the recommendation from you would vastly assist in this great work, and that it would greatly influence the schools in Alabama, in adopting this course of hygienic study, we are urged to make this request.

In addition, we wish to say, that we are grateful for the help we have already received from your profession, and trust that in the future, we shall have additional grounds for gratefulness for your influence in suppressing a traffic which is hastening thousands of our best people, unprepared, into eternity every year, and dragging down to poverty, disgrace and want, tens of thousands suffering wives and innocent and helpless children.

(Signed) MRS. MARIETTA SIBERT, President.
MRS. L. C. WOODRUFF, Secretary.

Executive Committee.—Mrs. Mary Hurzberg Stook, Mrs. Josephine Hollingsworth, Mrs. C. Thornton, Mrs. Rosa Parker.

Referred to the Board of Censors.

At 1 o'clock, P. M., on motion, a recess of fifteen minutes was had. After which the Association re-assembled, and continued the regular order of business.

VOLUNTEER AND MISCELLANEOUS PAPERS.

The schedule of volunteer and miscellaneous papers were called in their order, with the following result:

(1) The Alcohol Question; by Dr. Jerome Cochran, of Mobile.

The length of this paper, under the rules, forbid the reading of it entire. By the unanimous vote of the Association Dr. Cochran was requested to read the remainder of it at the evening session.

(2) Blount Springs; by Dr. Jerome Cochran, of Mobile. Read by title and referred to the Committee of Publication.

(3) The Epidemic of Röthlen in Autauga County, in 1882; by Dr. W. W. Golson, of Independence, Autauga county. Read by title and referred to the Committee of Publication.

(4) Eclampsia Gravidum Parturentium et Puerperem; by Dr. Benjamin H. Riggs, of Selma. Read and referred to the Committee of Publication.

(5) Some Facts Concerning the Eye-sight in School Children; by Dr. Frank Tipton, of Selma.

(6) The diagnosis and treatment of Naso-Pharyngeal Cattarrh; by Dr. Frank Tipton of Selma.

The schedule of volunteer and miscellaneous papers as given above, is in alphabetical order—Drs. Riggs and Tipton having read their papers first.

EVENING SESSION.

The Association was called to order by Vice-President Godfrey at 8 o'clock, P. M.

At the request of the Association, Dr. Cochran resumed the reading of his paper on Alcohol, commenced in the morning session, and consumed the thirty minutes allowed him.

The reading of this paper elicited an animated discussion, participated in by Drs. McDaniel of Wilcox; Weatherly, of Montgomery; Jordan, of Birmingham; Smith, of Prattville;

Brown of Benton; Riggs of Selma; Blake, of Randolph, and Cochran of Mobile.

The Association now adjourned to 10 o'clock, A. M. tomorrow, April 12th.

THE PROCEEDINGS OF THE THIRD DAY.

THURSDAY, APRIL 12.

The Association was called to order by President Parke, at 10 o'clock.

Under the head of unfinished business of yesterday, the report of the Board of Censors on the preamble and resolutions of Dr. Webb, read on yesterday, came up for consideration; when the report was concurred in, and the resolutions adopted.

REPORTS OF SPECIAL COMMITTEES.

Dr. George A. Ketchum, of Mobile, chairman of the Committee on Medical Journal, being absent, and having failed to send in his report, Dr. Edward D. McDaniel, of Camden, Wilcox county, one of the committee, said that as this committee, first appointed at the Huntsville session, 1880, had submitted a written report at the Montgomery session, 1881, and a verbal report at the Mobile session, 1882, and yet had arrived at no definite conclusion, he, therefore, moved that the committee be discharged from any further consideration of it. Adopted.

The Committee on Temperance Legislation, continued from last session, failing to report, Dr. W. H. Johnston, of Selma, the only one of the committee present, asked, as the chairman was not here, that the committee be continued.

Dr. Cochran moved that the committee be discharged, and thus dispose of it in its present form. Passed.

Dr. R. D. Webb offered the following supplementary resolution:

Resolved, That the discharge of the Committee on Temperance Legislation is not intended as an endorsement on the part of the Association of the essay on the alcoholic question, read by Dr. Cochran.

Adopted.

The Committee on Color-Blindness, through Dr. Edward H. Sholl, chairman, submitted the following report:

The committee appointed at Mobile in April, 1882, to act in connection with the Board of Censors in endeavoring to procure legislation in regard to the examination of railroad employes for color-blindness and acuteness of vision, report:

That a bill with this object in view was prepared by the committee, and presented by the Hon. W. H. Nevill, of Sumter, in the House of Representatives, just prior to the recess taken for Christmas.

The bill was referred to the Committee on Commerce and Common Carriers, and Dr. Webb, one of your committee, notified by the Senior Censor that he would be heard by the committee of the House when the Legislature assembled after the recess taken at Christmas. Dr. Webb was prevented, by unavoidable circumstances, from going before the committee until the first week in February.

The Committee on Commerce and Common Carriers gave him a patient hearing, and agreed to report the bill favorably for the action of the House; but, owing to the lateness of the time and the crowded condition of the business of the House, the committee failed to procure the floor after this, and hence the bill was never reported back for action by the House.

Your committee feel confident that could the bill have been presented earlier in the session, it would have been passed.

E. H. SHOLL,
W. H. SANDERS,
R. D. WEBB,
Committee.

Dr. John R. Hoffman, of Athens, in view of the importance of this subject, and the commendable efforts made by the committee in behalf of it, offered the following:

Resolved, That the Committee on Color-Blindness be continued, and instructed to co-operate with the Board of Censors in bringing the bill, as proposed by the committee, before the General Assembly of our State at its next session.

Adopted.

MOBILE, ALA.

THE OMNIBUS DISCUSSION.

The President announced, as leader of the Omnibus Discussion, Dr. Mortimer H. Jordan, of Birmingham.

Dr. Jordan, in opening the discussion, said—Matters over which I have no control, have prevented me from making any systematic preparation for this discussion. I will content myself by offering a few subjects for your consideration, with a running commentary on each, and then leave the discussion with you.

I now invite every one present, who feels so inclined, to condemn or criticize any opinion that I may express or any proposition that I may lay down; for, in these annual meetings, we are searchers after truths, facts, and principles to carry home with us to benefit those friends who entrust the health and lives of themselves and their families to our care. By a full discussion and a free interchange of opinion, we hope to obtain information, and increase our knowledge of therapeutics to such an extent that, in our respective fields of labor, it will tend to lessen the suffering, and lengthen the span of human life.

I will announce as my first subject:

IS THE ARTIFICIAL PRODUCTION OF ABORTION EVER JUSTIFIABLE FOR THE UNCONTROLLABLE NAUSEA AND VOMITING OF PREGNANCY?

In order to present this subject properly, I will state that in the last five years, I have met with two cases of excessive vomiting in pregnancy, sufficiently severe to threaten the patient from exhaustion and prostration, and where the stomach retained nothing—not even a teaspoonful of water. A wren would have starved on what these women ate for the last four weeks of their illness. In these cases, the rebellious nausea and vomiting continued, in spite of all the

milder remedies so well known to the profession, which were tried and failed, including dilatation of the os and cervex uteri, and a free application of nitrate of silver to the cervical canal. Furthermore, these cases resisted the action of food and medicine by the rectum, so far that the medical attendant was forced to the conclusion that if the nausea and vomiting continued much longer, with its consequent exhaustion and inanition, a fatal termination must be inevitable.

Causes.

Dr. Grailey Hewitt advocated the theory that these intense cases of gravid nausea were due to a mal-position of the gravid uterus; and Dr. Henry Bennett, of London, and others referred it to an irritable ulceration of the os and cervical canal.

Some of the German obstetricians attributed this trouble to a reflex phenomenon, and due to a stretching of the uterine muscular fibres. Dr. George J. Engleman, of St. Louis, in an able paper, supported the theory that this condition is due to a reflex phenomenon of the gravid state, and happily terms it as a hystero neurosis of pregnancy. Dr. Engleman's views seem to be the most plausible, and more in accordance with the clinical history of the two cases that I saw.

Treatment.

If gravid nausea is due to a reflex phenomenon of pregnancy, then it seems, after all of the milder expedients have been exhausted, that the most rational treatment—and we profess to practice a rational system of medicine—would be to artificially induce abortion, and empty the uterus of its contents.

Gentlemen, I approach this branch of my subject with the utmost diffidence, since I am aware that the extremest circumspection should be exercised in recommending the induction of abortion for this or any other cause, lest it be adopted too generally. And, although our standard

text-books give but little support or encouragement to the medical practioner, when contemplating the performance of this operation, yet I am sure that there are cases now and then in which the safety of the mother demands the sacrifice of the fœtus.

Among other eminent men I will mention Cazeaux, Burns, Dubois, Desermaux, Carl Braun, of Vienna, and Henry F. Campbell, of Augusta, Georgia, who state that the artificial production of abortion is never justifiable for gravid nausea. Cazeaux, in his book on obstetrics, mentions seven cases where abortion had been induced for gravid nausea, with only one recovery; but, gentlemen, Cazeaux' sad experience is greatly at variance with that of other equally prominent men, which I will allude to further on. Carl Braun, of Vienna, states that hyperemesis of pregnacy is never a justifiable cause for the production of abortion; and he further states that a free application of a ten per cent. solution of nitrate of silver to the os and cervical canal will relieve any case. Now, gentlemen, Prof. Braun is certainly in error on one of these accounts, for I have tried thoroughly this last remedy as he directed. I weighed the silver and water too, with no effect whatever.

A few years ago Dr. Henry F. Campbell, of Augusta, Ga., read an able paper before the American Gynecological Association on Rectal Alimentation for the relief of gravid nausea, in which he claims that there exists a reversed peristaltic action of the intestinal coats (which he terms retrostalsis), by which the food ascends the intestinal tube until it reaches the digestive fluids in the small intestine, and there becomes digested and prepared for absorption by the proper organs. Dr. Campbell concludes this valuable paper by stating that, under the careful and systematic application of rectal alimentation, artificial abortion for the relief of gravid nausea can be banished from practice, even as a last resort. Now, gentlemen, while I believe in the theory of retrostalsis as claimed by Dr. Campbell, and also believe that rectal alimentation will reduce the necessity of

artificial abortion for gravid nausea, almost to a minimum; yet my experience in two cases teaches me that sometimes the rectum becomes so irritable that it will retain neither medicine nor aliment, and if the woman is not relieved by abortion, her life will be sacrified. In support of this statement, I will refer to a case reported by Dr. W. W. Potter, of Buffalo, New York, who warmly endorses Dr. Campbell's views on this subject in the American Journal of Obstetrics, where rectal alimentation was perseveringly tried for several weeks, and the patient's life was finally saved by the artificial induction of abortion. I also find in the February number for the year 1883 of the American Journal of Obstetrics, a case reported by Dr. Haviland, of Vermont, where Dr. Paul F. Munde, of New York, was called in consultation, in which rectal alimentation was tried for several weeks, and finally the patient's life was saved by the artificial induction of abortion.

Dangers of the Operation.

Gentlemen, Cazeaux states that the mortality after artificial abortion from gravid nausea is extremely great, and mentions seven cases with only one recovery, and this statement is quoted, and to some extent endorsed, by Dr. Henry F. Campbell. In controversion of the above statement, I will cite you to a paper on this subject, read by Dr. McClintock, before the Dublin Obstetrical Society a few years ago, in which he reported thirty-six cases where artificial abortion had been performed for gravid nausea, and twenty-seven of the patients recovered promptly; and the nine that died, he attributed to the fact that the operation had been too long delayed, and some concurrent disease had complicated the cases so far that recovery was out of the question under any plan of treatment. Dr. McClintock, at the time of his death, was President of the Dublin Obstetrical Society, and for learning, skill, and scientific attainments, he had no superior throughout Great Britain. I could mention a number of cases from different sources where the

vomiting ceased promptly after an abortion, either spontaneously or artificially produced, but I will close this part of my subject by citing my own cases—two in number—where, as soon as the uterus was emptied of its offending contents, the patients never vomited again, but immediately began to retain and digest sweet milk and lime water.

Manner of Operating.

Dr. Dewees has stated that the sicker women became when pregnant, the harder it is to make them miscarry. This celebrated old master never uttered a truer saying, for, in my experience, it is almost impossible to make these extreme cases of gravid nausea abort by ordinary means. When reduced to the direful necessity of inducing abortion for this trouble, I would advise the medical attendant to make an operation of it; dilate the uterus mechanically, either with a sea-tangle or tupelo tent, and take out the embryo with the fingers. If this is impossible, place the woman in the latero-prone position, and after introducing Sims' speculum and hooking the uterus down near the vulva with a tenaculum, to curette out the uterine contents with Munde's placenta curette or Sims' uterine depressor. The secundines should be removed in the same way and the uterus washed out with a stream of warm carbolized water, and if any hemorrhage is present, the vagina should be well tamponed with disks of carbolized cotton after the regulation method of Sims.

In this connection, I wish to say a few words about uterine tents. In my opinion a sponge tent is a dangerous instrument, and will sometimes disappoint you and cause you to lose twenty-four hours of valuable time, for it will dilate the external os, and the place you need dilatation most (at the internal os) will be very slightly affected by it. I now never use a sponge tent, but can recommend, with a good deal of confidence, the tupelo tent, which will dilate a uterus, if properly applied, in three or four hours.

Gentlemen, I will now close my remarks on this subject

by formulating some of the principles that I have endeavored to establish.

1. In extreme cases of gravid nausea, the stomach often becomes so disturbed in its functions as to render the digestion of food harmful or impossible, which, if unrelieved, will produce death from inanition or exhaustion.

2. By careful dieting and a judicious rectal medication and alimentation, the necessity for the artificial production of abortion for the relief of gravid nausea, may be reduced almost to a minimum.

3. Finally, in those cases which have resisted all the milder expedients and life still seems to be threatened, the artificial production of abortion for the relief of obstinate, persistent and uncontrollable nausea and vomiting of pregnancy, becomes a justifiable measure, in medicine as well as in morals; and if the medical attendant refuses to perform it under such circumstances, he does not give his patient the benefit of all the resources of his art.

4. In gravid nausea, when the breath becomes offensive, and the pulse remains persistently above one hundred and twenty per minute, the uterus should be emptied of its contents.

In the discussion following—

Dr. W. H. Johnston, of Selma, said: In uncontrollable vomiting due to pregnancy, there can be no question in my mind of the propriety of producing an abortion when the vital powers commence to give way; and when the vomiting has been going on for a month or more, and has not abated in the least to any of the known remedies, and the pulse has gone up to 120 or more, and it is evident that the patient is daily growing weaker, then, I think, that the time for interference has come; that it is culpable to delay longer. It is then simply a question of time with the patient. Shall we stand by and see the woman and the product of conception both lost? or shall we interfere and save the life of the mother? That is the question for the phy-

sician to determine. Do not wait until the vital powers are so far gone that she cannot rally after the abortion has been produced. My only regret in a case of that kind, was, I once delayed too long, and the woman died from exhaustion.

The danger from the operation is slight. If the patient can be nourished by enemas I put it off until I see she is growing weaker daily; and when I am thoroughly satisfied on that point, I delay no longer.

The pulse is the best guide to the patient's strength. In cases where the secundines are retained, I do not think it the best practice to leave it to nature. There are two dangers in leaving it there. We are liable at any moment to have a hemorrhage, and this will surely occur if any part of it becomes detached, leaving a portion of it still attached to the fundus uteri. The other danger is from septicæmia. The safest and best plan, in my opinion, is to remove the after-birth, and then see that the uterus is thoroughly contracted and remains so for at least one hour before leaving the patient.

By Benjamin H. Riggs, of Selma: Dr. Riggs said there was no doubt in his mind that the induction of artificial abortion was necessary for the safety of the mother's life in some cases; and that it saved the mother's life by the only possible means in these cases. It was a very rare operation at all times, morally, but physically not so serious up to the beginning of the fourth month, or to the expiration of the twelfth week. Morally, it was always a grave question, because (1) You destroy a human life, and no one could tell the value of that life in its future development. (2) Because there was a natural tendency to procure abortion by many women who dreaded the pangs or dangers of maternity, or who did not desire to enlarge the number of their offspring; and this feeling should not be encouraged.

He did not think abortion or premature delivery should ever be procured without medical consultation. It was too serious a matter to leave alone in one man's hands.

He mentioned a case in his own experience of a young primipera, whose death was due, in his opinion, to exhaustion from the vomiting of pregnancy. Vomiting began early and continued unmitigated by anything until about the fifth month, when she spontaneously miscarried, and died the next day. He would express what he had to say on the subject in the following formula, viz:

(1) Sick stomache of pregnancy could produce death.

(2) Emptying the womb of its contents would relieve the hausea.

(3) Forced abortion before the end of twelve weeks was comparatively harmless; after that, it became much more serious.

(4) That in weighing the question between the life of the mother or the life of the child, we should decide in favor of the mother.

By Dr. Jerome Cochran, of Mobile: It seems to me, Mr. President, the final decision of the question now under discussion depends upon the previous determination of two preliminary questions. One of these is the purely moral or theological question as to the moral right of the physician to destroy, under any circumstances, and for any purpose whatever, the life of the fœtus. The other is the medical question proper, as to whether upon purely medical grounds the sacrifice of the fœtus ever becomes necessary.

So far in this discussion the medical question has been almost exclusively considered, although several of the speakers have shown incidentally that in an indefinite and uncritica way they have felt that there is a moral principle involved in the problem that ought to influence practice.

Now I am very emphatically of the opinion that this moral question is of such character and importance as to demand more thorough and explicit attention than has so far been accorded to it.

At the very threshhold of the discussion we are confronted by a difficulty of no slight magnitude—the dif-

ficulty, namely, that we have no absolute standard of morals. On the contrary, the laws of moral obligation, like all other laws of nature, and of human nature, are, unquestionably, provisional, tentative, liable in the onward march of human and social evolution to modification and change. What is demonstrably right in one century may be demonstrably wrong in another. What is perfectly innocent in one country, amongst one race of people, in one stage of advancing civilization, may be atrociously criminal in another country, in another people, in another civilization. And not only so; but even in the same age, and the same nation, we find different classes of the community widely separated from one another in regard to many questions of moral obligation as the results of differences of religous and scientific training. There are, it is true, certain great central principles in practical ethics about which all civilized communities are virtually in agreement. But in the practical application of even these central principles to the complex exigencies of social, and political, and religious conduct conflicting interpretations gain currency and lead to different estimates of the moral quality of identically the same acts. Take, for example, that familiar precept of the decalogue, Thou shall not kill. Everywhere amongst civilized nations the binding obligation of this rule is admitted in general terms without question. But in practice it is subjected to many qualifications. The organized community acting under the authority of the State may kill their enemies in war. Under the operation of the laws of the land the individual offender who has maliciously killed his neighbor may forfeit his right to live. And the individual citizen may take the life of his assailant in necessary self-defence.

In the absence then of a moral code of absolute and universal authority, what are we to do? To this question there can be but one answer. Every man may do with a good conscience whatever is not in contravention of the laws of the land and the recognized customs of the community in which he lives.

Having thus to some extent cleared the way for further argument, let us come back to the question immediately at issue—the question, namely, of the production of abortion for the relief of the incontrollable vomiting of pregnancy; or, to state the question in other and more comprehensive terms, Is it ever, under any circumstances whatever, allowable to destroy the life of the unborn child for the purpose of saving, or attempting to save, the life of the mother?

One great religious communion, namely, the catholic church, has answered this question in the negative. She says in effect, the child is innocent and cannot lawfully be condemned to death—not even to save the life of the mother. This church includes within its pale some hundred and eighty, or perhaps two hundred, millions of human creatures, and for all these millions this negative answer is the final settlement of the question. In the meantime, however, those who do not recognize the authority of the catholic church are under no obligation to accept her judgments.

I am not lawyer enough to tell you what would be the rulings of our American courts if cases of this sort were brought up for trial; but with the sentiments in relation to the matter that are prevalent amongst our people, I am sure that juries would not convict. So I suppose we need not trouble ourselves about the legal aspects of the question.

In the medical profession in recent times and in protestant countries, the principle that it is allowable to destroy the unborn child to save the mother has gained a very wide acceptance, and has become a potent influence in the regulation of obstetric practice. The assumption by which this theory and practice are justified is this, namely, that the mother's life is of more value to her family and to the community than the life of the fœtus in utero.

Of the sufficiency of this argument I have very grave doubts. Of the value of the mother's life some approximate estimate can perhaps be made. But who can estimate the value of the fœtus? He might develop into a great statesman, or a great soldier, the pride and ornament of his coun-

try; or in some other way he might become a benefactor of the human race. The great Cæsar, who, by the common consent of scholars, was the foremost man of all this world, was from his mother's womb untimely ript. And then, again, by what authority can a consultation of doctors sit in judgment upon human lives?

But aside from all this, it seems to me that the only safe ground to take in a question like this is, that every human life is altogether beyond all price, so that human lives can not be coolly weighed against one another in the balances of calculating expediency. I have no words of censure for those who in good faith and with consciences void of offence have reached conclusions different from mine; but for myself I am free to say that in these cases, under no circumstances whatever could I be induced to play the double role, first of judge and jury to condemn, and then of executioner to destroy. So much for the moral question.

As to the medical question, if the moral question could be hid away out of sight, I am willing to admit that there are cases in which the production of abortion in the interests of the mother is justifiable. I believe, indeed, that in the immense majority of these cases, although she may be brought very near to the gates of death, the mother's life may be saved without this sort of interference. But after making all allowances there can be no doubt that there is a small residuum of cases in which the mother will certainly die unless she is relieved of her uterine burthen—some cases, indeed, in which she will die any how whether she is relieved of the fœtus or not. This melancholy possibility is one of the inheritances of feminine humanity.

These cases divide themselves into two classes. First, those in which the fœtus has reached the stage of viability, that is to say, about the seventh month of pregnancy, when the induction of parturition is designated as premature delivery. In regard to the management of this class of cases there is no controversy. Here there can be no conflict between medical science and christian ethics; and whenever

indications seem to be urgent there is no reason why the delivery should not be accomplished.

The second class consists of those cases in which the fœtus has not reached a stage of development that will admit of extra-uterine life, that is to say, practically cases in which the trouble comes on before the seventh month. In these the induction of parturition is designated as artificial abortion, and it is to those alone that the leader has invited our attention.

Given then a pregnant woman with uncontrollable nausea and vomiting, with a non-viable fœtus, and the woman in extremity of danger; the question is, Whether in such cases the induction of artificial abortion is allowable from a purely medical stand-point.

In the discussion of this medical question we necessarily pass over again some of the ground already traversed in our discussion of the moral question.

The affirmative arguments are:

(1) That without the operative interference the woman will die.

(2) That the death of the woman of course involves the death of the fœtus.

(3) That without the operative interference therefore, two lives will be lost, while with it one may be saved.

(4) That the mother's life is of so much higher value than that of the fœtus, especially in this early period of its evolution, that her welfare alone should be considered in deciding upon the proper line of practice.

The arguments on the other side are:

(1) That even from a medical point of view the induction of abortion is never necessary, because experience demonstrates that no matter how extreme the case may be the woman will almost invariably live through it.

(2) That the induction of the abortion itself sometimes results in the woman's death, so that quite as many women are sacrificed in this way, and perhaps more, than would be if no operative interference were practiced.

(3) That where the aggregate advantages of a procedure so fraught with danger and responsibility as this is are at all doubtful, a wise conservatism most emphatically counsels non-interference.

I think it tolerably certain, although I know of no definite statistics to appeal to, that a larger percentage of deaths have occurred in cases where interference has been practiced than in cases where interference has not been practiced; but the evident reply to this statement is, that interference is never resorted to except in the most extreme cases, and that in these cases, as a rule, it is delayed until the patients are too much enfeebled to bear the additional shock. There is no doubt some truth in this explanation; and here emerges one of the special embarrassments which confront the physician in the management of these cases. As a conscientious man he cannot advise abortion until it is quite certain that all other remedies have failed, and if it is done then it must be done under the most unfavorable circumstances and with the probability staring him in the face that instead of saving the life of his patient he may in fact accelerate the approach of death. This is truly a dreadful dilemma, and one from which it is impossible to escape.

The danger in these cases comes from the inability of the patient to retain, digest, and assimilate food. Other pathological factors count for something, but the principal cause of the nervous prostration, the principal cause of death in these cases—if indeed these cases ever result in death—is inanition. When the vomiting makes it impossible to feed the patient by the stomach we resort to rectal alimentation; and it has been asserted that rectal alimentation properly managed may always be depended upon to bring the woman safely through her trouble. Cases, however, have been reported here to-day in which the rectum rejected everything that was put into it as persistently as the stomach did—uncontrollable rectal vomiting, if such an expression is allowable.

The appropriation of food by the animal organism is a

simple process of absorption, and this absorption can take place through any of the lining membranes of the body. The food, in order to be absorbed, must be in a state of solution. A considerable portion of the food taken into the stomach is already in a soluble condition, and is thus ready to be absorbed without any preliminary preparation, that is to say, without any preliminary process of digestion—the whole extent and purpose of the process of digestion being to transform the insoluble compounds of the food into soluble compounds. The salivary diastase converts insoluble starch into soluble sugar. The gastric pepsin converts the insoluble albuminoids into soluble peptones. The power to secrete digestive juices is not confined to the stomach, but is in some degree common to all the tissues of the body. A bit of coagulated albumin introduced into a flesh wound is, for example, digested by the muscular juices. The digestive power of the rectum has not been much studied, but that the juices secreted by it are to some extent capable of digesting albuminous and starchy substances is hardly to be doubted. But even if it has no such power the process of digestion can be artificially accomplished in the nutritive enemata before their introduction into the bowel, so that there need be no trouble as to this point. The only cases, therefore, that need be despaired of, are those in which rectal alimentation is impracticable because nutritive injections cannot be retained long enough to be absorbed; and the number of these must be small indeed.

I conclude, therefore, that a majority, and perhaps a large majority of the cases in which artificial abortion has been resorted to might have been successfully treated without it. And I want to take advantage of the occasion to say that in my opinion at least half of all cases in which the destruction of the fœtus is resorted to for the relief of the mother—including craniotomy in contracted pelvis—might be treated with more favorable results by other methods; and when I say at least half of the cases, I think I am stating the proportion very moderately. To my mind this slaughter of

the innocents is dreadful beyond all possibility of expression.

By Dr. John R. Hoffman, of Athens: I cannot enter upon the discussion of this question without emotion, for I have just come from the death bed of a relative, a bright, joyous woman; a happy young wife; a confiding patient, who, knowing her condition to be one of imminent danger, yet expected the doctor to conduct her to a safe and happy termination.

It was one of the most perplexing cases of the kind it has ever been my misfortune to encounter; and if ever a physician needs the sympathy and wise counsel of his medical confreres, it is when he is trying to determine what he shall do when two lives are depending on his decision.

There is good authority in favor of expectancy, and yet where the condition of the one whose life is beyond all comparison the most important, calls imperatively for relief—although the methods of relief are not in themselves devoid of hazard—nay, may even increase the risk—the physician must not wait until the golden opportunity slips away forever.

Would that I could tell you just what to do in all cases. For my own part, I shall hereafter not wait to see how much the mother can bear, how near in her self-sacrificing spirit she can approach the danger line and still draw back from it. But when the pulse begins to quicken; when the wasting form and sunken eye begin to tell their story of emaciation; when the irritable stomach, for many successive days, has utterly refused to tolerate food; when all this begins to appear in spite of remedies or without them, combined with careful rectal alimentation, I shall empty the uterus and thus remove the cause of all the trouble and danger.

By Dr. Edward H. Sholl, of Birmingham: Dr. Sholl asked the thoughtful attention of the Association to the im-

portant paper of Dr. Jordan. It was entitled to earnest consideration, as it involved a point where science and morals touched; wherein an honest difference of opinion did obtain. It presented a very serious question, and one that might at any time confront the physician for its practical solution.

He earnestly urged the older and more experienced members of the Association to give their views freely and fully on this subject, which dealt directly with an issue of as great importance, perhaps greater, than any we are called upon to decide.

SECOND SUBJECT.

IN ABORTIONS, SHOULD THE SECUNDINES BE REMOVED BY ART OR LEFT TO THE RESOURCES OF NATURE?

I am well aware that this subject possesses none of the charms of novelty, and the ordinary necessities of practice make it one in which each individual member of this Association has had a large and varied experience.

A question of this nature is never raised for discussion among medical men, without bringing into strong relief the divergent opinions regarding the best methods of procedure. My observation, gentlemen, teaches me that abortions, as they are ordinarily managed, contribute more material to the gynecologist than does labor at full term, for I have, on a number of occasions, had some poor exsanguined creature placed under my care, a victim of indecision and halting practice on the part, oftentimes, of the senior members of our craft. Furthermore, with faulty management death from abortion is by no means an infrequent occurrence. In support of this statement I find that the deaths from this cause, reported to the Bureau of Vital Statistics in New York, between the years 1867 and 1875 inclusive, were one hundred and ninety-seven, a number which, in all probability, falls considerably short of the truth, by reason of the many circumstances which in this condition tempt the concealment.

The total number of deaths during the same period from "metria" were, according to the reports rendered, one thousand nine hundred and forty-seven. Hegan reckoned one abortion to every eight or ten full time deliveries; a proportion, if correct, that would seem to show a mortality from abortion hardly second to that of puerperal fever itself.

But, on the other hand, if you exclude cases of criminal malpractice and wilful neglect on the part of the patient, an abortion, unless it occurs as a complication to otherwise dangerous disease, ought to be free from peril. In hospital practice, where patients are under direct control, deaths rarely, if ever occur.

Dr. Johnston reports that during his seven years mastership of the Rotunda Hospital, there were two hundred and thirty four cases of abortion; one of these died, but it was from mitral disease of the heart. The history books of Bellevue Hospital, New York, show a similar clean record. It is true that a large proportion of cases will do well under rest in bed and careful nursing, without the intervention of a physician; and it is equally true, that a large number of those treated by rest, ergot and vaginal douches, recover with long histories of repeated hemorrhages, fetid discharges, and local inflammations; and finally seek the counsel and assistance of some "specialist" for the relief of a subinvolution of the uterus, and a uterine and cervical catarrh. So, gentlemen, I think that no one can doubt the truth of the statement, that it is faulty midwifery which gives to gynecology nearly all its importance.

During the past five years I have left very few cases of abortion to the unaided efforts of nature. I not only never have had occasion to regret intelligent interference, but contrasting my later cases with those in which the expectant plan was adopted, the favorable results have been so marked, as to impel me in the future to pursue a similar bold and prompt procedure. I do dot propose to take up the time of the Association with the relation of illustrative cases, but will simply endeavor to formulate the rules of

practice, which, in the varied contingencies presented in these cases, have seemed to me to be most satisfactory. I shall classify abortions under four heads and recommend the primary extraction of the placenta, without leaving the result to nature, observing, of course, all proper precautions with reference to shock and hemorrhage.

CLASS 1ST—Where there is sudden flooding, cervex open, severe shock, and it is unknown whether the placenta has been expelled or not.

CLASS 2D—Where there is moderate hemorrhage, the fœtus has recently been expelled, the cervix is open, and the placenta within reach, and general condition good.

CLASS 3D—Is where the fœtus has been expelled for some days, the secundines are retained, the cœliac fetid, and some form of septic inflammation is present in the pelvic cavity.

CLASS 4TH—Is where there has been more or less flooding, fœtus has been expelled, cervix is closed, and the placenta can not be reached by the fingers; general condition good.

In the cases that I have denominated as first class, I would recommend such procedures as would check hemorrhage and relieve shock, and as soon as reaction was well established, the contents of the uterus should be removed. In the second class there seems to be no question as to the propriety of immediately evacuating the uterus. If the placenta is free, and can be removed without preliminary dilatation of the cervix, it should be regarded simply as a foreign body, and removed with the fingers or curette. I would not use the ovum forceps in the uterine cavity. It produces more pain, and is not so soft as the fingers or curette. In the third class, where we have present or impending some metritis, no good reason obtains why the uterus should not be relieved of its contents, and thoroughly cleansed with warm carbolized water.

The cervix is usually patent, and requires no dilating. The dull curette, or what I have used on several occasions—Sims' uterine depressor—will accomplish every desired ob-

ject in the way of removal. My limited experience teaches me that the quicker the focus of infection is taken away, the less is reparative action delayed, and septicæmia to be expected.

In the fourth class, I usually douche the vagina well with hot water, and have a tampon prepared, to be used in the event of hemorrhage, and wait twenty-four hours for nature to throw off the placenta. If, at the expiration of that time, this is not done, I dilate the cervix mechanically, and remove the secundines with the fingers or curette.

I can recommend this measure, after some experience, as being perfectly safe and highly satisfactory. The principles of treatment in these cases are very simple.

The indications are to check hemorrhage and empty the uterus. As to the best methods of attaining these results, opinions widely differ. The plan that I usually pursue is as follows: The patient should be placed cross-wise in bed, with the hips drawn well over the edge. The legs should be flexed, and the thighs held at right angles to the body, so as to secure the greatest degree of relaxation to the "perineum" and abdominal walls. The right index and middle fingers should then be passed into the vagina, and one or both through the cervical canal, while the left hand, placed upon the abdomen, gradually presses the uterus down into the pelvic cavity, so as to bring it within reach of the examining fingers. This portion of the act should be performed slowly, while every effort is made to divert the attention of the patient. Hasty manipulations invariably excite, in the most willing patients, the full resistance of the abdominal walls.

In the manual extraction of the ovum, or the placenta, deliberation and perseverance are the main elements of success. If it proves to be impossible to remove the placenta with the fingers, the woman should be placed in Sims' position, before a good light, and after introducing Sims' speculum, and pulling the uterus down as near as possible to the vulva, the secundines should be removed by means of

Munde's placenta curette, or Sims' uterine depressor. By again introducing the finger into the uterus, certain information can be obtained as to whether the uterus is entirely empty or not, and if so, it should be washed out with a gentle stream of warm carbolized water (thirty grains to one pint), in order to bring away any small detached portions of the ovum or placenta. If any hemorrhage should follow this operation, the patient should be placed in the "latero-prone" position, and the perineum retracted by a Sims' speculum, and the vagina tamponed, after the regulation method of Sims, with flattened disks of carbolized cotton. The vagina should be packed from above downward, until the narrow portion above the vestibule is reached; and when properly done, it will be effective, and no fears need be felt that the patient will be in any danger from further hemorrhage. In cases where decomposition has once set up, and there is great uterine tenderness and a fetid discharge, the uterine cavity should be washed out as before, and a free application of Churchill's tincture of iodine made to the internal surface by means of a uterine application armed with absorbent cotton. If this precaution is taken, the septic fever is often averted, or rapidly exhausts itself, because the reservoir of supply is removed with the debris of the ovum or secundines.

Gentlemen, I will close this subject by saying that the beneficial results following the complete emptying of the uterus in these cases are so decided, that I would not be deterred from proceeding actively, even where "peri-metritis" and "para-metritis," in not too acute a form, already existed.

Dr. W. H. Johnston, of Selma: The principal dangers in abortion are hemorrhage and septicæmia, when the secundines are left to nature. There is a question in my mind that if they can be removed without undue force, it ought to be done. If they can not be removed by external pressure on the womb, after the manner of Créde, I would not hes-

itate to pass one or two fingers into the womb, when it was sufficiently dilated, and remove with the pulpy or soft part of the finger, which I have done. Such a procedure does not, in my opinion, endanger the life of the patient in the least.

If the os uteri was closed, and no hemorrhage going on, or, even if hemorrhage was taking place, I would thoroughly tampon the vagina, give ergot, and then wait for twenty-four hours. I would repeat this procedure for three or four days, if they did not come away.

No absolute rule can be followed in these cases. The physician must be the judge, and at the time. There is no doubt we feel less apprehension of subsequent troubles when we know everything is away. We then have no fear of hemorrhage, and none of septic poisoning. I think removing the secundines with an instrument objectionable, as the finger is the safest.

On the whole, then, when practicable, I should by all means remove the secundines—and I mean by practicable, that no force must be used that would endanger the patient. Sometimes a patient dies from the simplest operation, and when no danger whatever is apprehended.

We must not cease to give relief to others because such things have happened once in a great while.

By Dr. Frank Tipton, of Selma: Dr. Tipton stated that he felt impelled to come to the rescue of Dr. Jordan in his stand in this matter, in as much as they were both at one time private students of the great apostle of this doctrine in America, Dr. Paul F. Munde, of New York, who not only instructed his students to practice, but also to preach his convictions on this important subject. His rule was immediate removal, under all circumstances. His plan was to depress the uterus with the left hand, and use the fingers of the right to scrape off the placenta. This failing, to use his long dull curette; still depressing the uterus with his left hand above the pubis, and enucleating with the curette,

the patient's hips being on the edge of the bed, and chloroform used if necessary.

If the physician has Thomas' large size dull curette, put the patient in Sims' position, and hook down the anterior lip of the cervix with a tenaculum and proceed, using no great force. Where the os was closed it was dilated with tupelo tents. In cases in which this immediate removal had not been done, fever or hemorrhage, or chill, came on, he would still operate, no matter how soon or late after the abortion.

This was followed by hot, carbolized douching and application of Churchill's tincture of iodine, if there was any oozing of blood.

The speaker thought that practitioners, as a rule, did not use the dull curette as often as it was indicated.

During his clinical studies in New York, he had opportunities of performing this simple operation, and seeing it done repeatedly without the slightest evil results. He invariably uses the dull curette in all obstinate cases of metrorrhagia with good results.

In one case of obstinate flooding following an imperfect abortion, the lady, during the last hemorrhage, fainted, and the flow could be stanched only by the tampon. One thorough curetting with the dull curette, and application of Churchill's tincture of iodine, cured her entirely.

The hemorrhage in this case was caused by retained portions of the secundines, which were not removed at the time of the abortion.

Whilst up, Dr. Tipton begged to say a word in behalf of the tampon as a hæmostatic in such cases. Tamponing, properly done, was an absolute safeguard against hemorrhages; as absolute as the ligature, or digital compression of an artery. But it must be done *secundem artem.* The woman must be in Sims' position—semi-prone—and Sims' speculum used. The tampon should consist of dampened cotton discs about the size of a silver dollar, with a string attached to each. Form some of these discs into rolls and

fill up the cavity around the cervix level with them, then pack the whole vagina tightly with the flattened discs. If this be done properly, bleeding is absolutely impossible. If any portion of the placenta be left, this tamponing will cause them to be expelled, and they will be found when the tampon is removed, lying in the os detached.

Applications of tincture of iodine and the tampon are indicated in all cases when neither the finger nor the curette can remove the placenta without undue force. The tampon should be invariably followed by the hot carbolized douche.

THIRD SUBJECT.

THE INJUDICIOUS USE OF QUININE.

The fact was established by some experiments made by Dr. Roosa, of New York, and also by Dr. William A. Hammond, several years ago, that the primary effect of quinine in moderately large doses, was to produce congestion of the retina and some parts of the ear; there was vascular injection of the auricle, the auditory canal and papilla; there was "tinnitus aurium" and a sense of exhilaration. Various German investigators have also shown that the primary effect of quinine is congestion, vascularity and exhilaration, and the secondary effect is that of depression. If these statements are true, it naturally follows that quinine is particularly harmful to ears which are already congested and pre-disposed to deafness. In colds in the head and in all colds affecting the aural passages, it seems would generally be aggravated by large doses of quinine.

In malarial fevers and in intermittent neuralgia, quinine is absolutely necessary in any size doses that may be required to control the paroxysms, but if the secondary effect of this drug is that of depression, it is dangerous in febrile diseases when continued in large doses. On this same principle I think that large doses of quinine daily administered in the different exanthemata will aggravate the condition, by shutting up the emunctories of disease poison. In my experi-

ence, in the continued forms of febrile diseases, antipyretic doses of quinine sometimes has a tendency to induce or aggravate a collapse. I fully concur in the views of Dr. Wm. O. Baldwin, of Montgomery, Alabama, on the injurious effect of quinine in pneumonia. I think that I have seen where antipyretic doses of quinine were injurious in croupous pneumonia, by its depressing effect; tending to develop an "adynamic" type of that disease. In pyæmia and septicæmia quinine is a popular remedy. In pyæmia, it is supposed that pus is absorbed from an abscess or ulceration and deposited elsewhere; and as quinine, theoretically, prevents the migration of corpuscles, hence it prevents the metastasis of pus. I have given quinine in both of these diseases, and while I succeeded in reducing the temperature by it, I never found that the general condition of my patient was at all injured by it.

I hope that it will not be understood that I am opposed to quinine, for I think that it is one of the most valuable therapeutic agents that we have, and probably I use it as often as most members of this association, yet, I think that in many instances it has been injudiciously used. I will close this subject by formulating the following observations: "Quinine given in large doses, day after day, is injurious in any protracted febrile or inflammatory disease that is depressing or overwhelming in its nature."

By Dr. Andrew Bowie, of Benton, Lowndes County: I venture, Mr. President, to offer a few remarks on the subject of quinine. My habit has always been to administer it in moderate doses, ordinarily from fifteen to twenty grains to an adult, and to children in proportion to age, dividing the quantity to be given into four or five grain doses. While such doses have generally produced the desired effect, it has never occurred to me to see any ill effects from the drug in practice. I have never had a case where the nerves of special sense were at all affected, or at all events, not sufficiently so to cause any serious complaint.

I administer quinine without hesitation in all the types of malarial fever, and in the disease known as typho-malarial fever it has appeared to me necessary to use quinine, if not heroically, at least frequently during the attack; and it has been my practice to put my patient under the influence of quinine once in every twenty-four hours, not with the expectation of immediately arresting the exacerbation, but to shove them off from one to three hours each day until the fever has entirely subsided.

Dr. Sholl referred in the course of his remarks to the use of quinine, or cinchonidia, in malarial hematuria. And in this connection I beg to say that, whilst I never gave more than two or two and a half grains of quinine at intervals of two hours in that disease, I have since learned that in some cases at least, quinine is not necessary at all.

In the last, and perhaps one of the most formidable cases of malarial hematuria I ever treated, there was not a moment in the whole course of the disease when it seemed to me that quinine was indicated, or that it would be well borne. Consequently, the patient recovered, and completely, too, without taking a single grain of any cinchona or alkaloid. I reported this case in full to the Medical Society of Lowndes county, not as being the only one treated in that way, but as a typical case, and one to the point.

Some medical gentlemen of standing and ample experience, not only regard quinine as unnecessary, but positively hurtful in hematuria.

In treating this disease, I give calomel and opium so combined that there will be no catharsis from the calomel, there being no fear on account of the opium, as narcotism seems to be almost impossible in the early stages of the disease. This prescription is followed closely every two hours until the excessive nausea, so common in the outset of the disease, is fully controlled and the tongue becomes moist; after which the case is treated to convalescence with twenty drop doses of muriated tincture of iron every two hours, some-

times with, and sometimes without two grain pills of quinine or cinchonidia.

This is substantially my plan of treatment with slight variations, and under peculiar circumstances. For instance, a few small doses of turpentine, if the tongue should become dry in the latter stages of the disease. I also give this valuable alkaloid in hematuria, not so much as an antipyretic *per se*, but as a tonic.

FOURTH SUBJECT.

THE USE OF GALVANIC ELECTRICTY IN UTERINE THERAPEUTICS.

In announcing this subject, I will state at the outset that I do not propose to branch out very far on electricity, but simply give the result of my experience with this remedy in uterine diseases. My object is to draw out in this discussion the experience of others with this agent in the treatment of those common and distressing diseases that so largely draws upon the time and patience of the busy practitioners. In uterine and ovarian neuralgia, in hyperplasia of the os and cervix uteri, in sub-acute ovaritis, and in the aching pains that some women have before menstruation and during cloudy weather, I have found galvanic electricity to produce decided benefit. It may have been all in the imagination, and the patient was simply aroused; but the remedy gained their confidence, and they thought that they were benefitted. I used a common galvanic battery, of from sixteen to thirty cells, and applied the current through the vagina and up and down the spinal cord, with the woman in Sims' position. I improvised an electrode for the vagina by taking a gum elastic male catheter, with a wire stylet in it, and cutting off about one inch of the elastic material at the distal end of it, I wrapped the wire with a small sponge just large enough to introduce easily into the vagina. This electrode I attached to the positive pole of the battery, and applied it well up in the vaginal *cul de sac*, and the other, a common sponge electrode, I attached to the negative pole,

and applied it to the back of the patient's neck. I generally applied a current of from eight to sixteen cells in strength two or three times a week, for fifteen minutes at each seance. The patient only felt a metallic taste in the mouth and a slightly burning, smarting, pinching sensation in the vagina and back of the neck. If the current should not be strong enough, by moistening the electrodes in salt water will increase the strength of the battery from fifty to seventy-five per cent. Another fact that may be worth mentioning is, that sometimes the battery may work well and the patient feels no current; this may be due to the wire in the conducting cords being broken inside of the thread wrapping that encloses it. A new cord, or repairing the break in the old one, will remedy the trouble. This is a simple matter, but it gave me a good deal of annoyance until I found it out; and if it will save any of you a similar trouble, it is worth relating. I have had patients to complain of such intense soreness in the vagina and about the uterus that they could hardly stand the introduction of the small vaginal electrode, and after one application of the galvanic current for fifteen minutes would state that they felt perfectly comfortable, with no ache nor pain anywhere. In addition to the use of galvanic electricity, I treat these diseases with tonics, salt bottles and other hygienic agents, and in some cases I make an application of Churchill's tincture of iodine to the roof and dome of the vagina once or twice a week. In conclusion, gentlemen, if you have any old chronic uterine diseases under your care that have been under the treatment of a number of physicians and specialists, and the os and cervical canal has been cauterized in many ways, and subjected to almost every variety of treatment, I urge you to try galvanic electricity, and you will benefit your patient some. You will certainly amuse her, and she will give you credit for having done her some good, and become a fast friend and a grateful patient.

FIFTH SUBJECT.

THE PROPHYLAXIS, OR ABORTIVE INFLUENCE OF VACCINATION ON WHOOPING COUGH.

In looking through Vogel's work on the diseases of children, I found that Jenner made the interesting observation that children recently vaccinated escaped whooping cough, and that vaccination exercised a favorable abortive influence on patients.

When my children took whooping cough, I remembered the statement in Vogel's book, and concluded to try it in my own family. I vaccinated all of my children with fresh bovine virus, except our little twelve months old babe, who was so delicate that I thought it would be cruel to give him a terrible sore arm, and subject him to the additional sickness of a successful vaccination.

The result was, that all of my children had whooping cough so slightly that you could hardly tell it; they did not whoop exceeding a half dozen times, except the babe and he coughed and vomited, and had all of the distressing symptoms of a severe attack of whooping for six weary weeks. I vaccinated one of my neighbor's children for whooping cough with a similar result. Gentlemen, this may have been a mere coincidence; and I introduce this subject simply to get the experience of other members of the profession; for if vaccination will abort or prevent whooping cough, it will, if generally used, prove a blessing to many a household.

There were no remarks made under this division of subjects. The leader then introduced the following and

SIXTH SUBJECT.

HYPODERMIC MEDICATION—ITS ADVANTAGES AND DISADVANTAGES.

The advantages of hypodermic medication are so decided that this question, I think, will hardly admit of any discussion. No practitioner is fully armed to combat all the emer-

gencies that may arise in an ordinary general practice without a hypodermic syringe. An opiate hypodermically used is almost a specific for cholera-morbus. Any hemorrhage from the lungs, nose, bowels, uterus, or from almost any internal organ can be promptly arrested by hypodermic medication. In shock and collapse there is no way of bringing about reaction half so quickly and certainly, as by the hypodermic administration of stimulants and restoratives. I have been using a hypodermic syringe for years, and have never had any bad effect from it, except an abscess in a few cases, where I gave quinine subcutaneously; and this was due doubtless to the quinine having been dissolved by the aid of an acid. Gentlemen, I have hardly begun to enumerate all that could be said in favor of hypodermic medication, but with the few remarks already offered I will leave the subject with you.

By Dr. E. Powell Riggs, of Birmingham: The solution for hypodermic use should be largely diluted and neutral in reaction; or at least without decided acid or alkaline reaction. If the solution is prepared with an acid and made very concentrated, a slight reduction in temperature causes a precipitation of crystals, and when injected produces irritation and abscess. An excellent mode of preparing quinine is to dissolve it in ether and add a few drops of ammonia. This makes a perfectly clear solution, and is free from irritating properties.

I am in the habit of inserting the needle well into the muscles. Used in this way it causes less pain, and I think not as liable to be followed by local inflammation and abscess, as when thrown into the subcutaneous cellular tissue. I have used it a number of times in this way, and have never seen a bad result.

NOTE.—The closing part of the omnibus discussion occurred on the morning of the fourth day, but is here presented in its regular order.

The Association adjourned at 3 o'clock, p. m.

THE BANQUET.

The banquet at the Relay House, given in honor of the Association by the physicians and citizens of Birmingham, took place at 9 o'clock, p. m., of Thursday, April 12th.

To this feast each member of the Association looked forward with that pleasure felt only by men suddenly cut loose from the cares of professional life.

The banquet hall was tastefully adorned with wreaths of flowers and evergreens, mottoes and drapery, the work of fair women.

The table held all that was good; all that a generous people could provide for men bent on feasting and making the occasion a vacancy for social pleasures.

The usual stereotyped order of toasts and answers to them having been gone through with, the first cork of the evening announced the advent of King Bacchus. The wine flowed freely, and gave to good nature a melancholy peace it was charming to behold. All the finer feelings of our nature are brought out on occasions of this kind, and we wonder they are allowed to sleep so long.

The banquet was one of the many successes of Birmingham.

THE PROCEEDINGS OF THE FOURTH DAY.

Friday, April 13.

The Association was called to order by President Parke, at 10 o'clock, A. M.

Under the head of miscellaneous business, next in order, the Secretary read letters from the following gentlemen, expressing regret at not having been able to attend the present session, and wishing success to the Association and much good to all present:

Drs. Paul DeLacy Baker, of Eufaula, Barbour county;

John W. Barclay, of Huntsville, Madison county; Walter C. Jackson, of Montgomery; George A. Ketchum, of Mobile; Adam A. McKittrick, of Evergreen, Conecuh county; William H. Sanders, of Mobile; and Samuel D. Seelye, of Montgomery.

Dr. Cochran said he wished to call the attention of the Association to a mistake which the Acting Treasurer (Dr. Tipton) had inadvertently made in issuing receipts for dues. He had dated all such papers for last year, which was incorrect, as dues are always paid in advance. Dr. Cochran then introduced the following resolution, which was adopted:

Resolved, That the Treasurer and Senior Censor be instructed to correct such mistakes immediately after the adjournment of the Association.

Dr. Jerome Cochran, Senior Censor of the Association, proceeded to read the Annual Report of the Board of Censors and Committee of Public Health, which here follows:

THE TENTH ANNUAL REPORT OF THE BOARD OF CENSORS, INCLUDING THE REPORT OF THE STATE BOARD OF MEDICAL EXAMINERS, AND OF THE COMMITTEE OF PUBLIC HEALTH.

SUMMARY OF CONTENTS.

PART I. THE REPORT OF THE BOARD OF CENSORS.—*Introduction—The County Medical Societies—Of certain Provisions of the Constitution—The Recent Session of the General Assembly—The Second Attempt to Repeal the Law to Regulate Practice—A Question of Medical Ethics—The Memorial of the Woman's Christian Temperance Union—The Grand Senior Counsellors—The Reports of the Secretary and the Treasurer—The Roll of the Correspondents—Applications for Charter.*

PART II. THE REPORT OF THE STATE BOARD OF MEDICAL EXAMINERS. *The Work of the State Board of Medical Examiners—The Work of the County Boards of Medical Examiners, Including Reports from Forty-one Counties.*

PART III. THE REPORT OF THE COMMITTEE OF PUBLIC HEALTH.—*The Work of the State Board of Health for the Past Year—Yellow Fever—Statistical Blanks—Expenditures—The Work of the County Boards of Health—Assistant Health Officers—The National Board of Health and the Ship Island Quarantine Station—Miscellaneous Recommendations.*

PART IV. THE REPORTS OF THE STATE HEALTH OFFICER.—*The Report on the Work of the County Boards of Health—The Report on Yellow Fever and Quarantine—The Outbreak of Fever in Baldwin County—The Report on Small-Pox and Other Infectious Diseases.*

PART V. SUPPLEMENTARY PAPERS.—*Fees for Medical Examinations in Life Insurance—Schedule of the Illinois State Board of Health for the Examination of Undergraduates—Sketch of Yellow Fever at Whiting in 1870 and 1873, by Dr. James A. Wilkinson.*

PART I—THE REPORT OF THE BOARD OF CENSORS.

INTRODUCTION.

The present session of the Medical Association of the State of Alabama closes the first decennial period since its reorganization in 1873, by the adoption of what is known amongst us as the new Constitution. Let us look back over the history of these ten years, endeavor to make a fair estimate of what we have accomplished, and see whether the progress we have made is of a character to yield us gratification for the past, and reasonable encouragement as to the future.

At the session of 1873, representatives were present from fourteen County Societies. The number of County Societies then really in existence in the State can not be accurately stated. At various times, delegates had been in attendance from twenty-eight counties; but in several of these the societies were already dead, and in several others they were dying; so that it is probably not far from the truth to place the number of organized and living societies at twenty. We have now upon our rolls more than double this number, or forty-one regularly chartered county medical societies, all of them at least nominally engaged in the administration of the law to regulate the practice of medicine in the State, and of the health laws of the State. But candor obliges us to add that several of these are not yet in a condition of satisfactory efficiency. It is hoped that the fostering care of this Association will avail to keep these feeble bodies alive, and that year by year they will grow stronger in organization and discipline, and capacity for useful work. In the meantime, the medical profession in other counties are from time to time effecting the organization of societies, and taking their places in the ranks of the Association. Two newly organized county societies have applied for

charters at the present session. These will swell the number of our affiliated societies to forty-three; and there will then remain twenty counties in the State outside of our organization. Some of these are very poor and sparsely settled, and almost destitute of doctors; and while they remain in this condition, will not be able to sustain societies within their borders. In all but a few of them, however, there are doctors enough to warrant the formation of societies, provided they are animated by the proper spirit of professional aspiration, so that we venture to hope that before another ten years has passed away, the beneficent influences of our Association will extend over the whole State.

While the number of our affiliated societies has been doubled, our progress in other directions has been at a still more rapid rate. The volume of Transactions for 1873 numbered only 102 pages, while for the last several years the number of pages in our annual volumes has ranged from 400 to 450, issued in good style and handsomely bound. In 1873 the Treasurer reported an income of just 500 dollars; the receipts of last year's session footed up 1080 dollars; and the revenues for the present session will perhaps reach 2,000 dollars, or four times as much as was collected in 1873.

In 1873, again, the college of counsellors contained forty-seven members. It has gradually increased from year to year until now the constitutional limit of one hundred members has been reached; so that for the future the honors of the counsellorship will be quite difficult of attainment.

These statistical details may seem a little dull, but they have an eloquence all their own. They show in a way that admits of no peradventure of doubt or cavil that the Association has never faltered in its onward march, and that contrariwise the years as they have passed away have constantly added to the number of its members, to the number of its affiliated societies, to the amount of its revenues, to the limits of the territory over which its usefulness and in-

fluence extend, and to the honor and estimation in which it is held by the people of the State.

For the rest we beg leave to repeat as specially appropriate to the occasion the following passages of our report of last year:

The history of the Medical Association of the State of Alabama is a continuous record of earnest and unselfish work. The aggregate cost of this work since our reorganization after the war, in actual cash paid out of the pockets of the members of the Association, has not been less than forty thousand ($40,000) dollars. We have recognized from the beginning that in the economy of this world individuals and societies can have whatever they want if they are able and willing to pay for it, and that nothing worth having is to be got on any other terms. There is no exaggeration in saying that we have achieved a very gratifying measure of success. We have saved the medical profession in Alabama from much demoralization. We have overthrown throughout the State, with the exception of a small section of country, where the fight is now going on, the pernicious system of contract practice. We have upheld and vindicated the beneficent authority of the ancient ethics of the profession. We have encouraged the study of the diseases incident to our geographical position and climate. We have obtained from the State the right and the power to regulate the standard of qualifications prerequisite to the practice of medicine in the State. We have been invested with the administration of the health laws of the State, and the selection of all health officials, State, county, and municipal.

So much for the past. For the present and the future the line of policy which the Association ought to pursue, and which, under the guidance of wise and prudent counsels it is to be hoped it will pursue with a resolution that shall never falter, stretches out before us so plainly marked that it will be our own fault if we fail to find it and to walk in it. And what that wise policy dictates is this: Not to weary of well-doing; but to continue in the same spirit and according to the same methods that have heretofore controlled our action, the work that has been so favorably begun; to seek always the public good and never our own; and always to recognize the great principle that union and organization involve strength and permanence, and lead on from conquest to conquest, while the assertion of individual rights and privileges, and the gratification of personal jealousies and ambitions are always the agents and instruments of disintegration and defeat.

THE COUNTY MEDICAL SOCIETIES.

The Medical Association of the State having reached a very high grade of discipline and efficiency, the most important work now waiting to be done is to improve the discipline and efficiency of the county societies. How to ac-

complish this is a problem which we have discussed on several occasions in our annual reports. As entirely applica- to the present condition of things in the county societies generally, we transcribe here what we said in relation to this problem in our report for last year, and earnestly commend our remarks and recommendations to the serious attention of everybody concerned:

There is an old maxim that no chain is stronger than its weakest link. Now in our plan of organization our continued success or our ultimate failure depends to a very considerable extent on the efficiency of the county medical societies. We are glad to be able to say that many of these are well organized and admirably managed. Upon these the Association builds her hopes. They are in very deed the confederates of her power. We are also glad to be able to say that, taking the county societies generally, there can be no question that they have grown gradually into better organization and greater efficiency during the last decade, and especially during the last few years. But for those that have made most progress there is still room for improvement; and of a considerable number of them the following statement, quoted from our report for 1881, still remains true:

Many of our county societies are not what they ought to be, are defective in discipline, and in professional and public spirit, and perform their important duties in such formal and perfunctory fashion as contributes but little to their own good reputation, and quite as little, it is to be feared, to the benefit of the profession and the people whom it is their duty to serve.

Here is now the weak place in our armor, the vulnerable heel of Achilles in our organization, namely, *the comparative inefficiency of our county societies;* and it is to the county societies that we must accordingly direct our most anxious attention. With their eyes wide open, and something of judicial deliberation, they have undertaken the discharge of important public duties; and they must be made to understand that they have got to perform these duties with a decent approximation to a reasonable standard of efficiency; or else that it will become obligatory for the State Association, as the faithful servant of the profession, and of the State under the law, to cut them off from her communion and fellowship by the withdrawal of their charters.

Negligence and procrastination—these are the rocks upon which the county societies will founder if they founder at all. Only let a majority of the members of any county society do, every one for himself, the simple duties that devolve upon him individually on account of his society membership, and success is as certain to bring laurels to that society as that the night follows the day.

We know very well the difficulties that lie in the way of many of the county societies, and we do not underrate their magnitude. We know that the members are often scattered over considerable areas of country, that the roads are often in such bad condition as very seriously to impede travel

upon them, and that very often when there is but one practitioner in a neighborhood he has patients that he can not leave.

But in spite of all these difficulties, those that we have mentioned and those that we have not mentioned, it is still possible, in almost every county of the State, to keep up an efficient county medical society. Frequent meetings, while much to be desired on many accounts, are not absolutely necessary to efficiency. The more frequent the meetings the better; but it is quite possible so to arrange and manage the business of a society that it could all be reasonably well done if the society held only one meeting in a year. In such case the society would have to devolve a great deal of its business on its officers, especially on its president and its board of censors.

We are afraid that the presidents of the societies often fail to appreciate the extent and character of the obligations imposed upon them by their official positions. The president of a society should indeed feel that he is the head of it, that it is his duty to think for it and act for it, to see that all the other officers and members come up to the measure of their respective duties, and that nothing is neglected that ought to be done. What would become of an army if the general in command was not continually on the watch to preserve its discipline and promote its welfare?

More important still are the boards of censors; (1) In their capacity as censors; (2) As boards of medical examiners; and (3) As committees of public health. In every county the boards of censors should be selected with a view; (1) To the efficiency of its members; and (2) To the facility with which they can meet together. And this last consideration is often of so much importance that it should be allowed to outweigh the other. Better have a censor of less ability who can be depended on to attend the meetings of his board, than a much abler man whose services can hardly ever be made available. If possible, the whole number of the censors, or at least a majority of them, should reside in the county town or very near it, so that there may never be any trouble to get a quorum for the discharge of business.

Once properly organized the board of censors should meet at least once a month, and at these meetings they should; (1) Look after the general welfare of the society; (2) Examine applicants for certificates to practice medicine, or to commence the study of it; and (3) Receive and canvass the monthly report of the county health officer, and see that the vital statistics law is properly administered.

The board of censors, acting as a committee of public health, as we have said, should meet at least once a month; they should have regular times for meeting; and they should meet promptly when the time comes. It will be found in practice best to have these meetings about the middle of every month. No member should remain away on the plea that there is nothing to do. There ought to be something to do, and if there is not something to do, that alone is quite sufficient proof that there is something wrong.

Rewards cleave to deserts,
And power to him who power exerts.

The more we have been able to study the conduct of the county societies, the more it has become evident to us that in very many instances the official members of the medical societies of the counties, and especially the Presidents and the boards of censors, have not simply sometimes neglected their duties, but have neglected them systematically and habitually—have neglected them to such an extent that they seem to have utterly forgotten that there was any obligation of duty resting upon them. This ought not to be. This must not be. It is because the officers of the State Association do their duty, discharging at the right time and in the right way the legitimate functions of their several positions, that the State Association has so abundantly prospered. If the officers of the county societies will emulate the example thus constantly before their eyes, the county societies also will very soon exhibit the signs of vigorous life.

For the present we content ourselves with these general suggestions; but in our future reports we propose to give, under this head, a critical review of the status and work of each and every one of the County Societies on our Roll, so that the weakness, the efficiency or the inefficiency of each of them may be brought clearly and expressly to the notice of the Association.

OF CERTAIN PROVISIONS OF THE CONSTITUTION.

It will be remembered, by those who have made themselves familiar with the provisions of the constitution of the Association, that the enforcement of articles 70, 71, 72, 73, 74 and 75, was left to the discretion of the several county societies during a period of ten years, reckoning from the date of the adoption of the constitution. This period of ten years having now ended it becomes necessary to call attention to the articles in question. They relate to the formation of the county boards of censors, the examination of doctors proposing to practice medicine and the registration of the same, and to the preliminary examination of such persons as propose to begin the study of medicine.

As a result of the law to regulate the practice of medicine in the State, all of the county societies have already organized their boards of censors, and have engaged in the examination and registration of all persons holding the diplomas of medical colleges who propose to practice medicine in any of the organized counties. Most of the county societies have also adopted ordinances providing for the preliminary examination of such persons as propose to begin the study of medicine; but we believe there are still several societies who have not as yet prepared for the enforcement of these preliminary examinations. It becomes necessary, therefore, to notify these societies that for the future the constitutional rule in regard to this matter must be enforced; and, as it is a matter of the greatest importance, it is hoped that the board of censors, in making these preliminary examinations, will hold all applicants fully up to the required standard. To secure this end we respectfully recommend that all the county boards of medical examiners be required to send up to the State Board of medical examiners the examination papers in these cases in the same way as they now send up the examination papers of those who are examined for the practice of medicine.

We desire also to call special attention to a fact which might otherwise be overlooked, namely, this: That the obligation of the county societies in the matter of the enforcement of the articles of the constitution now under discussion is not at all contingent on the law to regulate the practice of medicine in the State, but would be equally of obligation if that law had never been passed, and would remain obligatory if that law were repealed.

The original and primary object of these articles was to provide a way by which the organized medical profession in the State could protect itself from the intrusion into its ranks of the ignorant and incompetent doctors annually turned loose on our American communities by the medical colleges; and in the absence of legislative enactments for the protection of the people against this class of doctors, the

133386A

protection of the profession would still remain of paramount importance—a great duty of solemn obligation still resting upon us, and not to be disregarded except at the certain cost of immeasurable professional degradation. It is a humiliating confession to have to make, but when these articles were under discussion in the Association it was doubted by many whether the medical profession in Alabama could be relied upon to carry out the policy involved in them, and so the ten years proviso was added to afford opportunity for preliminary discipline, education, and probation. We venture to hope that no doubts of this sort could now be plausibly entertained, and that our county boards of examiners, with the encouragement of a united profession behind them, if put to the test, would be found as competent to afford protection to the profession itself in this regard as they have proved themselves competent to afford protection to the public under the authority of the State.

THE RECENT SESSION OF THE GENERAL ASSEMBLY.

At the last session of the Association we were instructed to present certain bills in relation to sanitary interests of the State, for the consideration of the General Assembly at its recent biennial session, namely:

(1) A bill to define some of the duties of the State Board of Health.

(2) A bill for the regulation of quarantine in Alabama.

(3) A bill for the protection of the traveling public against accidents resulting from color blindness and defective vision.

The first two of the bills here mentioned were introduced into the Senate, and referred to a special committee, which agreed to report favorably upon both of them. There was a great rush of business, and it was hard to get bills considered, but shortly after the recess the chairman of the committee got the floor, reported the bill to define some of the duties of the State Board of Health, and it was passed with only two adverse votes. Before he could report the

quarantine bill he was crowded off the floor and the opportunity passed. Then came the excitement about the defalcation of the treasurer; and then the terrible press of business towards the end of the session; and the upshot of the matter was that the bill was left in the hands of the committee.

In the meantime the bill to define some of the duties of the State Board of Health went into the House, was referred to the Judiciary Committee, reported upon favorably, amended on the floor of the House in a way that made it of very little value, and finally passed. Believing that the bill in its amended form could be of no use, we succeeded in getting it reconsidered a few days afterwards, and got the obnoxious amendments rescinded. Then other amendments were offered; an animated discussion sprang up; some blunders were made by our friends; the favorable moment was lost; and we thought it best to postpone the further consideration of it to a more opportune season. This opportune season never came, and so the bill failed without coming to a final vote.

The color blindness bill, in regard to which we acted in concert with the special committee by which it had been drawn up, was introduced into the House, and referred to the Committee on Commerce and Common Carriers. Dr. Webb, of the special committee, visited Montgomery, and explained to the legislative committee the reasons and purposes of the bill. But the bill was never reported back to the House.

Six other bills in which we were more or less interested were introduced into the House, and these we proceed to mention *seriatim:*

(1) A bill to suspend the operation of the law to regulate practice in so far as it might affect certain practitioners of medicine in Crenshaw county. The practitioners in question were irregulars. The bill was referred to the Committee on Local Legislation, which never made any report upon it.

(2) A bill to create a board of botanic physicians in Crenshaw county. This bill was also referred to the Committee on Local Legislation, and was never reported back to the House.

(3) A bill to give physicians a lien on crops to the amount of ten dollars annually in each instance, ranking next after the landlord's lien. This bill was brought back from the House by the committee having it in charge with a favorable report; but was defeated, the doctors in the House very properly opposing it.

(4) A bill to amend the charter of the city of Birmingham, including a provision to empower the municipal authorities to elect a city physician with health functions. The bill passed; but before its passage this clause was so amended as not to interfere with the general health laws of the State.

(5) A bill to amend section 1515 of the Code. This was introduced by Mr. Burnett of Conecuh county, and became a law. It explains itself, and is here subjoined:

AN ACT

To amend section 1515 of the Code.

SECTION 1. *Be it enacted by the General Assembly of Alabama,* That section 1515 of the Code of Alabama be, and the same is hereby amended so as to read as follows:

Section 1515 (1222). *Authority of Courts of County Commissioners.*—Courts of County Commissioners, with respect to quarantine, and the establishment of hospitals for persons infected with contagious diseases, have the same authority which, under this chapter, towns have; and such courts may establish such hospitals, and make such rules and regulations as they may deem necessary to prevent the spread of contagious diseases; and appoint such guards and superintendents as may be necessary to effect their object. And the probate judge, when supported in his judgment by the opinion of three respectable citizens of the county, one of whom shall be a competent licensed physician, if, in his discretion he shall deem it necessary, shall have power to establish such hospitals, and make such rules and regulations as he may deem necessary to prevent the spread of contagious or infectious diseases, and appoint such guards and superintendents as may be necessary to effect his object; and it shall be the duty of the probate judge, as soon as practicable thereafter, to call together the Court of County Commissioners who may ratify, change or disaffirm the acts of the probate judge.

Approved Feb. 10th, 1883.

(6) A bill to repeal the law to regulate the practice of medicine in Alabama, and to allow any one holding the diploma of any medical college to practice medicine in this State. The exact title of this bill is not remembered, but what we have said gives the substance and purpose of it. It failed in the committee to which it was referred.

This effort to repeal one of the laws passed at the instance of this Association deserves a more detailed notice, which accordingly here follows:

THE SECOND ATTEMPT TO REPEAL THE LAW TO REGULATE PRACTICE.

The first attempt to repeal this law was made in the General Assembly of 1880–81, and the history of it is given at length in our report for 1881, which also includes a copy of the Memorial made use of on that occasion, and our commentary on the same. In the recent attempt, this old memorial was resurrected by a homeopathic physician of Mobile, and with some additional signatures, all of them obtained in Mobile, was presented with the bill to the General Assembly before the recess. After the recess, a new memorial was presented, containing all of the old signatures and a considerable number of new ones, as follows:

To the Honorable, the Senate and House of Representatives of the State of Alabama, assembled:

The undersigned, your petitioners, respectfully represent to your honorable bodies—

1. That at the present time, questions regulating the practice of medicine are in serious disturbance, by reason of the various opinions and principles governing the same of physicians of equal learning, and ability, and honesty; that such differences are due to false codes of medical ethics emanating from certain organized associations, and founded upon prejudice to all medical principles not in conformity to an ancient dogma upon which these associations presume, "*ex cathedra*," to pronounce who is "regular" and who is not; whom the citizens of the State shall employ, and whom they shall not employ; to whom their appointed Censors or County Boards of Medical Examiners shall issue *discriminating* certificates, not in accordance with the applicant's true medical qualification, but only such as, by the Constitution and Book of the Rules of the Medical Association of the

State of Alabama, shall be respectively issued by "Form No. 3, for the practice of *any other* than the *Regular System* of medicine, and by Form No. 4, for the practice of the Regular System of medicine." (*Vide* The Book of the Rules, pages 71 and 72, of the Medical Association of the State of Alabama.)

2. That the same class, seeking control of all departments of the government service, compel all government employes to submit to their arbitrary choice of medical treatment.

3. That no candidate for examination before the State boards, or before government medical officials, under the ruling of the Medical Code of Ethics of the American Medical Association and its allied State Associations, who avows his belief in any other system of medical practice than such as may be considered "regular," is not accorded any impartial certificate, if any at all, to practice medicine in the State, or in the case of the government service, an appointment, or even an examination for the same. (*Vide* Joint resolution now before Congress, viz., Senate resolution, 1st session, No. 96, and House resolution No. 256, of July 14th, and 17th ult., respectively; *that all* qualified physicians be thus made *equal before the law* in the government service.)

4. That an act "To regulate the practice of medicine in the State of Alabama," passed the Legislature of Alabama February 9th, 1877, which invested the Medical Association of the State of Alabama with the sole control and arbitrary authority to decide for the equally competent and more than equally interested citizens of Alabama, who shall be accredited as "regular," and who shall be stigmatized as "irregular." (*Vide* Sec. 1 and Sec. 2 of the act to regulate the practice of medicine in the State of Alabama; also, the *Book* of the *Rules*, Sec. 8, page 70, of the Medical Association of the State of Alabama—*Diplomas* and *Certificates* issued in accordance with discriminating forms, respectively, for the so-called "regular" and "irregular" practitioners.)

5. That the said Medical Association of the State of Alabama is irresponsible to the citizens of Alabama for the proper fulfilment of the unlimited trust conferred; that said Association, by reason of its constitutional rules and medical code, is incompetent, and has *prejudicated* every applicant for a certificate to practice medicine in the State of Alabama who avows any other system of medical practice than such as is *predefined* "regular" by their Inquisitorial Code of Medical Ethics.

6. That the bestowing of exclusive privileges and such unlimited authority upon associations and boards of physicians of any special school whatever, is an unjust encroachment upon the individual right of the medical profession at large, and is dictating, by partial legislation to the citizens of the State, how and by whom the healing art shall be exercised in their behalf; that in the sentiments and language of Dr. Benjamin Rush, a true patriot, a scientific physician and philosopher: "Conferring of exclusive privileges upon bodies of physicians, and forbidding men of equal talents and knowledge, under severe penalties, from practicing medicine within

certain districts of cities and countries, are institutions, however sanctioned by ancient charters and names, *serving as the bastiles of our science.*"

7. That the present act does not accomplish the special object of a law determining the highest standard of qualification of persons applying for certificates to practice medicine in the State of Alabama, inasmuch as by "Sec. 1 and Sec. 2 of the act to regulate the practice of medicine in the State of Alabama," provision is made to slip into the State such as propose to practice some irregular system of medicine, simply upon "a diploma or certificate of qualification in anatomy, physiology, chemistry, and the mechanism of labor."

8. That whilst Sec. 1 and Sec. 2 of the act is providing easy means of admission into the State of *incompetently* qualified medical practitioners, Sec. 9 of the act is legally giving encouragement to *malpractice*, and offering a covering under the law to *criminal abortion.*

9. That the standard of qualification required of persons desiring to practice medicine in this State by Sec. 4 of the act is unknown to any of the citizens of Alabama other than members of the Medical Association of the State of Alabama, and far less so to persons desiring to immigrate from a distance, to engage in the practice of medicine in this State; that the collegiate and university medical standard of qualification of all regularly chartered institutions, are the recognized standards all over the enlightened world for male and female, and all persons of both sexes may have equal preparation, examination, and diplomas of endorsement, in all the departments of the science and art of medicine; whilst the presentation, history and registration of such diplomas before the probate judge of a county of the State, verified by oath under the law for false swearing, gives to no exclusive class of citizens privileges not granted to all, nor measures with no rod of partisan spirit, nor despotism neither constructs any medical association of the State of Alabama into a "medical legislature, having for its *highest function* the government and direction of the medical profession of the State."

10. That the only avenue now practicable, and which provides the most and best means to accomplish the proposed object, is by the regularly graded curricula of the chartered medical university or college, which proficiency and high standard of qualification legislation might determine with perfect equality to all applicants; that the theoretical and practical knowledge of experienced professors, educated more especially for the purpose of teaching, and the clinical advantages offered by them, allow to the disinterested judge no question on the subject by comparison, and the same applies to final examinations.

Therefore, we, the undersigned citizens of the State of Alabama, your petitioners, patrons of all systems of medical practice, do for equal justice pray, that such partial and unjust discrimination as is exercised under the present law regulating the practice of medicine in the State of Alabama, in giving to particular boards of medical examiners, of any school whatever, privileges to the prejudice of the individual rights of the majority of the citizens of the State, and of desirable immigration into the State, be re-

pealed, and that the bill now pending before your honorable bodies, as a substitute for the present law, which is *just* and *impartial to all* the citizens of the State of Alabama, and *protective* in the *standard* of *qualification* required of *all* medical practitioners, who are now engaged in the practice of medicine in the State, or may hereafter come into the State to engage in the same, be made the law to regulate the practice of medicine and surgery in the State of Alabama.

J. W. R. Williams, M. D., W. H. Lamar, M. D., E. J. Driver, M. D., A. N. Worthy, M. D., W. S. Douglass, M. D., R. E. Huey, M. D., A. N. Adams, M. D., R. J. Thornton, M. D., M. A. Caulfield, J. H. Lock, G. F. Werborn, Chas. Werborn, E. J. Farrow, John Wylie, E. C. Emanuel, F. R. Osborn, Thos. P. Miller, R. D. Williams, Jno. W. Miller, Chas. B. Miller, Geo. E. Miller of Thos. P. Miller & Co., John H. Marshall, Robt. W. Hallett, H. Y. Baugh, Geo. S. Moore, Geo. A. Lippincott, John H. Tindall, Adam Curtis, Peter Starke, President People's Savings Bank, C. W. Hurley, A. A. Winston, President National Com. Bank, Alex. LeBaron, I. H. Emanuel, Price Williams, Price Williams, Jr., J. W. Holmes, O. J. Semmes, Judge City Court, Jno. A. Soto, Druggist, C. Rossignol, Louis Stein, Chas. Mohr, Chemist and Druggist, M. Primo, Druggist, B. Ward, Druggist, O. D. Crawford, Supt. Emerson Institute, J. B. McAuley, Dentist; E. H. Lewis, Dentist; H. F. Wilson, John Matzenger, Theo. Guesnard, H. H. Slatter, J. R. Burgett, D. D., J. Zeigler, M. W. DuBose, M. D., W. A. Alexander, J. B. Owens, M. D., A. O. Murphy, A. P. Hall, M. D., Jno. S. Holmes, W. J. Murrell, M. D., R. M. Sands, O. J. Hood, M. D., Stoutz & Co., John Maguire, Stoutz Bros., F. Nubrick, Thos. M. LeBaron, A. Phillipe, M. Hatton, T. J. Hatton, Jno. E. Curran, A. F. Taliaferro, T. L. Eastburn, Jr., R. B. Morris, Jas. E. Sherman, John W. Murrell, Thos. L. Eastburn, John G. Friend, H. M. Friend, Jno. C. Chamberlain, Jno. R. Edwards, Joe. E. Murrell, Hiram L. Griffing, A. H. Bates, S. Hurley, Jno. H. Higley, A. J. Moses, S. Croom, Attorney-at-law, T. R. Macartney, Attorney-at-law, D. P. Bestor, Attorney-at-law, Dan'l Wheeler, G. B. Cleveland, D. S. Richardson, A. M., F. H. Oliver, A. W. Deering, F. Hazard, Jno. Cowley, James R. Eagan, J. H. Snow, E. P. Herpin, H. E. Wallace, Walter Pearce, P. E. Godfrey, E. O. Zadek, N. Crane, Geo. Eberlein, Wm. A. Buck, W. B. Vail, F. McGowan.

This new memorial is not written in quite such abominable English as that employed in the old one; but for all that it is extremely involved and so very hazy that the author of it must have a lively appreciation of Talleyrand's maxim that language is given us for the concealment of thought. At any rate it has to be very carefully studied if one would translate its declamation and bombast into definite propositions such as admit of proof or of refutation.

Having submitted it to this sort of study we are not sur-

prised to find that there is hardly a single proposition contained in it which expresses even a faint semblance of the truth—certainly not one touching any question at issue of which it can be truthfully said that it expresses the truth, the whole truth, and nothing but the truth, about the matter to which it relates.

And yet amongst the signatures attached to this precious document are found the names of many honest men, and of several scholarly and thoughtful men. How is this to be accounted for? We have good reason to believe that most of those who signed it did so without reading it, and did so in many instances under the influence of assurances as to its scope and purpose which, to say the least, were not remarkable for judicial accuracy; and we happen to know that some of the signers of it would be very glad if their names had been written in some sort of evanescent ink that would long ago have faded out, leaving no record of their folly.

But in the meantime there the names are; they give a sort of fictitious importance to the document it would not otherwise have; and so, in order that there may be no need for anybody to be mistaken about it, we proceed to indicate a few of its many sophistries. It would take too much time to indicate them all. We take up the several paragraphs *seriatim*.

(1) Whether "questions relating to the practice of medicine are in serious disturbance," whatever that may mean, we will not stop to discuss; because there might be some difference of opinion as to what would constitute "serious disturbance." Neither will we stop to discuss too seriously the question "whether the physicians whose diversity of opinions and principles" is asserted as the "reason" of the said "serious disturbance" are correctly represented to be "of equal learning, ability, and honesty." On the one side of this question stand the little handful of so-called doctors known as homeopathists, who have almost ceased to be heard of in Germany, the country of their origin, and who,

indeed, have almost disappeared from all parts of Continental Europe; who have themselves very generally abandoned the most distinctive doctrines of their peculiar medical creed, the doctrine of infinitesimals and dynamization; and who have never made a single substantial contribution to any of the departments of medical science, but have always been forced to steal from the regular profession their anatomy, physiology, pathology, surgery, and obstetrics. On the other side is the great body of the regular profession of medicine; a great army which no man can number; spread all over the civilized world; reaching back through centuries and milleniums of the time that has passed away; the heirs of all the ages; who have slowly built up the great fabric of the medical sciences as we now have it; and which is destined to remain great and powerful as long as civilization itself endures.

These declarations, therefore, about the "serious disturbance" and the "equal ability" we pass by without criticism; but all the other assertions of this paragraph may be peremptorily challenged. It is not true that these alleged "differences" "are due to false codes of medical ethics." Or if it is so let the false codes in question be pointed out, and let their falsehood be demonstrated; and let that "ancient dogma" which is accused of such dreadful offenses be put into plain words so that all the world and the rest of mankind may know what it is, and visit it with commendable reprobation. As to the "discriminating certificates," that was a concession of the General Assembly in favor of the irregulars, and chiefly for the benefit of the homeopathic fraternity. It was doubtless felt by the law-makers that these people might with some show of reason claim that it would not be fair to have their knowledge of therapeutics investigated by examining boards who held their therapeutic doctrines and methods in contempt. But it was also felt that if a man had a competent knowledge of anatomy, physiology, chemistry, and the mechanism of labor, he might be presumed to know something of the other branches of

medicine. And, on the principle that half a loaf is better than no bread at all, it was thought that a partial examination was better than none, and the law was passed in its present shape. The intimation that the Boards of Medical Examiners undertake to decide who is regular, and who irregular, is another misrepresentation of the facts. They do nothing of the sort. Every applicant decides that question for himself. In a written application to the Board he states what system of medicine he desires to practice, his examination is shaped accordingly; and his certificate honestly upon the face of it shows what was done. If the graduate of a homeopathic medical college desires to be examined in all the branches of medical science with a view to engaging in the regular practice, his wish will be gratified.

(2) The second paragraph has the merit of brevity; but of any other merit it is singularly destitute. It contains three lines of print; and these three lines contain two inaccurate and disingenous statements. By the expression "the same class," is here evidently meant the regular medical profession. But the regular medical profession do not seek to control all departments of the government service; and do not seek to "compel all government employes to submit to their arbitrary choice of medical treatment," whatever that high sounding phrase may mean.

(3) The usual recklessness of assertion characterizes the third paragraph. Leaving aside the "governmental medical officials," which is evidently intended to apply to some naughty people connected with the government of the United States, and who have nothing in the world to do with our law,—leaving all this aside, all that is here said about the code of ethics of the American Medical Association is unmitigated bosh; said code from the beginning of it to the end of it not laying down a single rule about the examination and certification of physicians, regular or irregular, who propose to practice medicine in Alabama, or anywhere else. For the rest we assert that our examining boards have been impartial in all the work they have done; that all the cer-

tificates issued by them have been honest and in every sense of the word impartial; and if these assertions are not true let their want of truth be shown in the only way that has any effect on fair-minded men, that is to say, by specific and authentic instances, with names, dates, and such other facts as admit of identification.

(4) The fourth paragraph makes an assertion about the act to regulate the practice of medicine in Alabama, which is utterly and gratuitously false. The act in question does not invest the Medical Association of the State "with the sole control and arbitrary authority to decide who shall be accredited as regular and who stigmatized as irregular"—it does not say who shall decide as to anybody's regularity or irregularity, and does not define in what either regularity or irregularity shall consist, unless all this hyfalutin is based on the simple and righteous provision of the law that the Medical Association shall from time to time fix for the examining boards the standard of qualifications and the rules for conducting the examinations. In none of the instructions issued by the Association does the word 'irregular' occur at all, certainly not on page 70 of the Book of the Rules; and, as we have already stated, every applicant for examination is left to determine his own status for himself. Neither is the phrase "some irregular system of medicine," intended to stigmatize anybody in any bad sense of the word. It is simply a comprehensive expression which everybody understands to designate briefly all the various systems of practice which are outside of the regular profession.

(5) The first affirmation of this paragraph is an unmitigated untruth, an old falsehood that on a previous occasion we had thoroughly exposed. The Medical Association *is* responsible—to the people, to the State, and to the courts—for the manner in which it discharges all of its legal functions and obligations. The man who says otherwise makes proclamation either of his stupidity or of his mendacity.

The second affirmation is so mixed up that it is hard to

say what it is intended to mean. The State Association is asserted to be "incompetent"; but the character of the incompetence is not indicated; and in what way it has "prejudicated" certain classes of applicants for practice is left to be guessed at. "Prejudicated" is a word of learned length and thundering sound, but we believe it means the same as prejudiced. If the intention of the assertion is that our examining boards have determined in advance to reject all applicants who are not members of the regular profession, it is a baseless calumny. Only one homeopath has ever presented himself before any of our boards, and he passed a successful examination, and that too before a board that had rejected four out of five applicants belonging to the regular profession.

(6) We know of no associations or boards of physicians who have received any exclusive privileges, or any grants of unlimited power, and are consequently entirely unable to understand the marvelous rhetoric of this sixth paragraph. Logic it certainly has none. The quotation from Dr. Rush doubtless expresses Dr. Rush's opinion in regard to some state of affairs that is not mentioned here; but, in the first place, Dr. Rush was a very fallible man; and, in the second place, there is no law in Alabama "forbidding men of equal talents and knowledge from practicing medicine" in any part of the State.

(7) The object of the existing law is not to determine the highest standard of qualification of persons applying for certificates to practice medicine in Alabama; but contrariwise was the intention to provide a way to determine the minimum amount of qualification necessary. Certainly applicants are not likely to be rejected for knowing too much. The charge, that provision is in the law to "slip in" certain persons, is a gratuitous attack on the honesty and good faith of the General Assembly of the State, and may be allowed to pass without further notice than to say the provision alluded to was put in the law for the benefit of homeopaths and other irregulars, and that an examination in anatomy,

physiology, chemistry, and the mechanism of labor, is a great deal better than the old system which did not require examination in anything.

(8) This eighth paragraph is another impeachment of the honesty and good faith of the General Assembly of the State; or we should rather say that it gravely accuses the law makers of a great State with the subornation of abominable crimes. It makes the very grave charge that section 9 of the act gives legal encouragement to malpractice, and provides an inducement for criminal abortion. What extremely improper persons our legislators must be if there is even a shadow of foundation for this statement. But there is none. It is simply another example of malevolent ambition overleaping itself. Section 9 of the act is in fact as innocent as a nursing babe. It simply provides that the jurisdiction of the boards of medical examiners shall not extend over females engaged in the practice of midwifery—only that and nothing more.

(9) What a triumphant blast of trumpets we have here. But, as soon as we can catch our breath, let us look about us and see what it all amounts to. It may be that some of the citizens of Alabama are not familiar with the standard of qualifications governing our boards of medical examiners; but if so it is because they do not care to trouble themselves about it. As far as a layman is competent to understand such things they could have the information for the asking. It would be equally true to say that the standard of qualifications necessary to enable a man to practice law in Alabama is unknown to the people of the State; and we even undertake to assert that it would be much easier to ascertain the medical standard than the legal one. The next suggestion is certainly unique in its originality. We ought of course to make use of all reasonable means to stimulate immigration into the State; but surely we need not offer a bonus to peripatetic doctors. Those enterprising gentlemen ought to be satisfied with the same treatment that our home doctors apply to themselves, to their brothers, and to their children.

There is no established and recognized standard of qualifications for the government of colleges and universities in the awarding of diplomas. Every medical school is a law unto itself and fixes its own standard, or manages to get along without any standard at all. It is notorious that hundreds of incompetent, and even grossly ignorant young men are every year invested with the title of doctor, and turned loose to experiment on the credulity of the American people. In the meantime it is not true that the standards of medical colleges "are the recognized standards all over the enlightened world." On the contrary, the diplomas of medical colleges carry with them the right to practice medicine and collect fees no where in the civilized world except in these United States.

(10) "The regularly graded curricula of the chartered medical university." In the name of the seven wise men, what does that mean?

"Mobbled Queen is good," says one of Shakespear's clowns; and by the same token "the regularly graded curricula of the chartered medical university" is—well, just splendid. "Medical university" is a patent contradiction in terms, as everybody knows who knows what the word university means; and if there is any miraculous efficacy in a charter we have yet to find it out. A medical college regularly chartered under the laws of the great State of Massachusetts—the Bellevue Medical College of Boston—has been convicted of selling diplomas after the most nefarious fashion to men who had never heard a medical lecture, nor read a medical book in their lives; and when the courts of Massachusetts were appealed to to punish the faculty for such conduct it was found that they had acted within the law and were not amenable to any legal penalty. In other words, every college decides for itself upon what conditions it will confer its diplomas, and its action does not admit of legal question. And it is a system that admits of such abuses as this that this memorial would substitute in Alabama for the existing law! It is true that medical colleges

are not often so shameless as the one here mentioned. But still our boards have had occasion to reject as incompetent dozens of young men holding the diplomas of colleges that nobody would dream of classing as otherwise than "reputable."

Of the petition which is based on the inconsequent, inaccurate, and fallacious premises which we have thus passed in rapid review, it is perhaps just as well that we should say nothing. *Requiescat in pace.*

A QUESTION OF MEDICAL ETHICS.

We have received a communication asking what, in our opinion, is the proper course to pursue in a case like that which here follows:

A physician engaged in contract practice is, on that account, placed under the ban by the local medical society, and denied all sorts of professional recognition, including the privilege of consultation. He has a bad medical case, or a surgical case requiring greater skill than he is master of, or an obstetrical case requiring instrumental interference, and either the doctor himself, or, and more usually, the family or friends of the patient, become anxious to have the advice of some other doctor. It is well understood that no consultation can be had. So the physician whose services are desired is sent for. He does not have anything to do with the attending contract doctor, perhaps does not even see him; but he examines the patient, makes his prescription, or performs the needed obstetrical or surgical operation, leaves directions as to the future management of the case with the family or the nurse, and retires; and the contract physician resumes charge of the patient. Is this sort of indirect assistance allowable? A question involving almost the same ethical considerations as are involved in the question here submitted to us, came up for consideration in the Mobile Medical Society in 1874; and as the argument in that case suits our purpose, we quote ehre a considerable portion of it:

The question is this, namely: Whether it is justifiable in a regular physician, for the purpose of performing some special service, or of meeting some special emergency, surgical, obstetrical, or other, to visit a sick person under the care of a homeopathic or other irregular physician; it being understood that no formal consultation is held with said homeopathic or irregular physician, nor any recognition of professional fellowship extended to him?

It is provided in section 1, article IV, of the professional code of ethics, that no irregular practitioner can be considered a fit associate in consultation; but there is no express provision of the code applicable to the case here in question.

Nevertheless, your committee are of the opinion that the true spirit of the ethics, and at the same time the true policy of the profession, and both with unmistakable emphasis, prohibit all regular physicians from allowing themselves to be made use of under the circumstances mentioned. Regular physicians can not properly visit patients who are at the time under the care of homeopathic or irregular practitioners; and can not properly leave patients in the hands of such practitioners after the performance of medical, surgical, or obstetrical services.

When the homeopathic or irregular practitioner has been formally and permanently discharged from all further attendance on the case, then the way is open for the ministrations of the regular physician, but not till then. If to see the patient of a homeopathic or irregular practitioner is not a *quasi* consultation, it is at least to give him aid and countenance by helping him out of a difficulty—a sort of service which he has no right to expect at the hands of the regular profession. If it be urged that in such cases humanity requires of the physician that he should not refuse to a fellow creature the benefit of any knowledge or skill he may have, the reply is easy. The obligation of humanity is equally incumbent on the family and friends of the sick person. It is left with them to decide whose services they will have; and if they decline to put the irregular physician out of the way, whatever blame there may be attaches to them, and not to the regular physician who refuses to compromise his own dignity and the honor of his profession by incongruous and unworthy associations.

On the basis of the principles developed in this argument, the Mobile Medical Society proceeded to establish an ethical rule for the correction of the abuse complained of, which rule we have modified so as to make it of more general application, and present herewith, with the recommendation that it be adopted by the Association as an amendment to the Ordinance in relation to Medical Ethics which was enacted at the session of 1881, as follows:

(5) He should not, directly or indirectly, extend any sort of professional service or advice to patients under the care

of homeopathic or irregular practitioners, no such service or advice being allowable until the homeopathic or irregular practitioner has been formally and permanently discharged from all further attendance upon the case; and all physicians under the ban of any local society should be treated in every way as irregulars.

THE MEMORIAL OF THE WOMAN'S CHRISTIAN TEMPERANCE UNION.

We have considered carefully the memorial addressed to the Association by the Woman's Christian Temperance Union; and respectfully recommend that the Senior Censor be instructed to write, in reply, a letter acknowledging the reception of said communication, expressing our appreciation of the evils growing out of the abuse of alcoholic beverages, our sympathy with all wisely directed measures for the abatement of these evils, and explaining to them that it is contrary to the policy of the Association to consider this question except in its purely scientific relations.

NOTE BY THE SENIOR CENSOR.—This recommendation having met with the approval of the Association, I prepared, soon after my return to Mobile, the following letter, which was duly forwarded to the Secretary of the Executive Committee of the Woman's Temperance Union:

To the Ladies of the State Woman's Christian Temperance Union:

The communication addressed by you to the Medical Association of the State of Alabama during its recent session at Birmingham, in regard to the recommending of "Catechetical Text Books on Alcohol and Hygiene" for study in the public schools of the State, was duly received, read before the Association, and referred to our Board of Censors for consideration; and I have been instructed to reply as follows:

(1) That the members of the State Medical Association appreciate and regret the great evils that flow from the abuse of alcoholic beverages, and are in hearty sympathy with all prudent and wisely directed measures looking to the suppression or abatement of said evils.

(2) That in such ways as are open to us we are doing what we can to encourage the diffusion amongst our people of the study of public and private hygiene, and are glad to be able to state that these subjects are already included in the course of study pursued in many of our schools.

(3) That for the rest, it is the settled policy of the Association not to involve itself in any of the political issues growing out of this alcohol question, which are just now provoking so much social and political agitation.

THE GRAND SENIOR COUNSELLORS.

At the present session of the Association some twenty-one or two, out of the thirty-six Senior Counsellors on the Roll, having served the Association in the capacity of Counsellor for ten years, have become entitled to the rank of Grand Senior Counsellor, the highest permanent dignity the Association has to bestow. These are the veterans of the Association, and our ordinances wisely provide that as a special mark of honor they shall be invested with a medal or badge significant of the rank they have attained.

At the last session of the Association we were charged with the duty of preparing a design for the medal or badge in question to be submitted for consideration during the session now pending.

We have considered this matter with a great deal of care, and we present herewith the design we have agreed upon. It consists of a medal bearing the seal of the Association. The material is gold. The letters and emblems are to be in raised work. The price to each Grand Senior Counsellor will be twenty-five dollars.

We have felt that the badge should be a handsome one, because we can not doubt that to be a Grand Senior Counsellor of the Medical Association of the State of Alabama will before many years have passed away become the highest honor that can be aspired to by an Alabama doctor.

THE REPORTS OF THE SECRETARY AND THE TREASURER.

We have examined the Annual Report of the Secretary and find it satisfactory. We recommend that it be approved by the Association.

We have also examined the Annual Report of the Treasurer, together with the accompanying vouchers. We find it

to be correct and satisfactory, and recommend that it be approved by the Association.

The Book of Accounts has not been submitted for our inspection, as ought to have been done, and we recommend that the Senior Censor be instructed to ascertain whether this book is in proper order.

THE ROLL OF THE CORRESPONDENTS.

No names have been proposed for the Roll of the Correspondents, and in that regard we have no recommendations to make.

APPLICATIONS FOR CHARTER.

Applications for Charter have been received from the following newly organized county medical societies, namely:

The Medical Society of Coosa County.

The Medical Society of Henry County.

We have had the Delegates from these Societies before us, and are satisfied that they are sufficiently well organized to warrant the expectation that they will do reasonably good work. We therefore recommend that the applications be granted, and that the Secretary be instructed to issue the Charters in due form.

PART II.—THE REPORT OF THE STATE BOARD OF MEDICAL EXAMINERS.

THE WORK OF THE STATE BOARD OF EXAMINERS.

No applications for examination have been made to the State Board of Medical Examiners during the past year; and no appeals have been made by rejected candidates from the decisions of any of the county Boards of Examiners.

We have carefully gone over all the examination papers sent up from the county boards, and find them to exhibit very various degrees of thoroughness, as will be more fully

seen in the next section of this Report. Taken altogether these papers show, indeed, that the county boards as a rule are growing more familiar with their duties, and are discharging said duties with increasing efficiency. We are sorry to be obliged to add that in spite of this general improvement a considerable number of them have conducted their examinations after such careless and slipshod fashion as to make them of very little value, and not at all in accordance with the instructions promulgated by this Association in 1877 in the ordinance in relation to the boards of medical examiners.

These boards should have more regard for the interests of the medical profession and of the people of the State than to act in this disreputable way; and they should remember that it is due to the applicants themselves that the examinations should be of such scope and character as to afford them a fair opportunity to show their real knowledge of medicine as a proof of their fitness for professional fellowship and the patronage of the public.

There is one thing of a somewhat delicate nature, that for all that, must needs be mentioned here. It was the opinion of several members of the State Board that several sets of these examination papers had a decidedly bookish look, and that to such an extent as to suggest the suspicion that some of the applicants may have had access to authorities in the preparation of their answers to some, at least, of the given questions. If this suspicion is not warranted by the facts several of the persons examined have exhibited a very gratifying familiarity with some of the branches of medicine. However this may be, we venture to call the attention of the examining boards to the directions in regard to this matter contained in the Book of the Rules.

There is another thing to which we feel obliged to refer, namely, this: A few of the boards have sent up their examination papers in excellent order; but this has been the exception and not the rule. Some have been received in such abominable order that it was hardly possible to make

The Chilton County Board reports that no examinations were made in that county in 1882.

The Choctaw County Board reports the examination of—

William Floyd Kimbrough, M. D., Medical College Alabama, 1883. Certificate granted.

Collin Baslum Brown, M. D., Nashville Medical College, 1880. Certificate granted.

The scope of these examinations is defective by the omission of medical jurisprudence, public and private hygiene, and medical ethics. Dr. Kimbrough's examination is fairly good; Dr. Brown's is less satisfactory. The papers are in very bad order.

The Crenshaw County Board reports that no examinations were made in that county in 1882.

The Colbert County Board makes no report. It is known that no examinations were made in that county in 1882, the Society and all its Boards being moribund.

The Conecuh County Board reports that no examinations were made in that county in 1882.

The Dallas County Board reports the examination, preliminary to the study of medicine of—

James M. Donald. The examination was considered satisfactory, and the permission to begin the study of medicine was granted.

The Etowah County Board reports the examination of—

James Harden Wood, M. D., Vanderbilt University, 1882. Certificate granted.

John Joseph Patterson, M. D., Eclectic Medical College of Atlanta, Georgia, 1878. Certificate granted.

John Benson Liddell, M. D., Atlanta Medical College, 1881. Certificate granted.

W. L. Funderberg, M. D., Atlanta Medical College, 1883. Certificate refused.

——— Graves, M. D., commenced his examination, but abandoned it before it was finished.

We have to suggest that these examinations might with advantage have been made somewhat more formal and comprehensive. We also note that so far as the papers show examinations were not made in medical jurisprudence, public and private hygiene, and medical ethics, as is required by the instructions issued by this Association for the guidance of the county boards of medical examiners. These defects seem hardly to call for special censure; but it is hoped that this board will be more careful in future.

We call special attention to the fact that Dr. J. J. Patterson, a graduate of an irregular medical college, made application to be examined for the practice of the regular system of medicine, and was accordingly so examined and passed. This action on the part of the board was clearly right.

The Greene County Board report the examination of—

James Spann Boyce, M. D., Louisville Hospital Medical College. Certificate granted.

This examination is extremely defective, covering only two pages of note paper, and relating to the single subject of pneumonia. We therefore recommend that we be authorized to notify the board of medical examiners of Greene county that this Association regards with grave dissatisfaction the extremely imperfect way in which this examination was made.

The Hale County Board reports the examination of—

Edward Burton Ward, M. D., University of New York, 1882. Certificate granted.

This examination is satisfactory, and we have no fault to find with this board.

The Jackson County Board reports that no examinations were made in that county in 1882.

The Jefferson County Board reports the examination of—

Tennent Lomax Calhoun, M. D., Atlanta Medical College, 1879. Certificate refused.

Brice M. Hughes, M. D., University of Louisiana, 1882. Certificate granted.

J. French Duncan, M. D., University of Louisville, 1882. Certificate refused.

Andrew Leight Monroe, M. D., Hahnneman Medical College, Philadelphia, 1879. Certificate granted.

Walter Jones Miller, M. D., University of Tennessee, 1881. Certificate refused.

George H. Edwards, M. D., Jefferson Medical College, 1881. Certificate refused.

These examinations are sufficiently thorough and comprehensive, except perhaps that of Dr. Duncan. We have no fault to find with this board.

A specially notable fact in this report is the granting of a certificate to practice medicine to Dr. Monroe, a homeopathist.

The Lawrence County Board reports that no examinations were made in that county in 1882.

The Lee County Board reports that no examinations were made in that county in 1882.

The Limestone County Board reports the examination of—

S. E. York, M. D., Kentucky School of Medicine, 1877. Certificate granted.

This examination was very imperfectly done, and we recommend that we be authorized to notify the Board of Medical Examiners of Limestone county that this Association regards with grave dissatisfaction the extremely imperfect way in which this examination was made.

The Lowndes County Board reports the examination of—

Hugh Thomas Caffee, M. D., University of Tennessee, 1883. Certificate granted.

William Josiah Moss, M. D., University of Louisville, 1880. Certificate granted.

These examinations are well done. The questions are sufficiently numerous and comprehensive to afford the applicants a fair opportunity for showing the real extent of their knowledge of the various departments of medicine. It may seem to be a matter of minor importance, but we de-

sire to commend the excellent order in which this board sends up its examination papers.

The Macon County Board reports that no examinations were made in that county in 1882.

The Madison County Board reports that no examinations have been made in that county in 1882.

The Marengo County Board reports the examination of—

Robert Beal McCants, M. D., Medical College of Augusta, Georgia, 1882. Certificate granted.

William Leonard Kimbrough, M. D., University of Louisiana, 1881. Certificate granted.

Frank Elliot Gordon, M. D., Medical College of Alabama, 1882. Certificate granted.

William H. Allen, M. D., Louisville Medical College, 1882. Certificate granted.

The questions prepared by this Board were well chosen, and of a character to test the real knowledge of the applicants. We note, however, that they did not examine in medical jurisprudence, public and private hygiene, and medical ethics. It is to be hoped that these omissions will not be allowed hereafter to occur.

The Mobile County Board reports the examination of—

Willie B. Pape, M. D., Alabama Medical College, 1882. Certificate granted.

Edward Dickson, M. D., Alabama Medical College, 1882. Certificate granted.

Harry Tutwiler Inge, M. D., University of New York, 1882. Certificate granted.

These examinations were well done, and we have no fault to find with this board.

The Monroe County Board reports that no examinations were made in that county in 1882.

The Montgomery County Board reports that no examinations were made in that county in 1882.

The Morgan County Board reports the examination of—

William B. Maxon, M. D., University of Michigan, 1870. Certificate granted.

H. S. Duncan, M. D., Vanderbilt University, 1882. Certificate granted.

Jodie Simpson Turney, M. D., Vanderbilt University, 1882. Certificate granted.

The papers in these cases were not received until after the adjournment of the Association, and were then sent up in very bad order. The examinations were not specially brilliant, but may be allowed to pass without censure.

The Perry County Board reports that no examinations were made in that county in 1882.

The Pickens County Board reports that no examinations have been made by that Board since their report for 1882.

The Pike County Board reports that no examinations were made in that county during the year 1882.

The Randolph County Board reports the examination of S. J. Davis, M. D., Vanderbilt University, 1883. Certificate granted.

We find this examination to be extremely imperfect; and we recommend that we be authorized to notify the Board of Medical Examiners of Randolph county that this Association regards with grave dissatisfaction the extremely imperfect way in which this examination was made.

NOTE BY THE SENIOR CENSOR.—The foregoing recommendation was based exclusively on the written examination of Dr. Davis. In the meantime there are some extenuating circumstances that might have modified the report of the Board of Censors if they had been known at the time. Dr. Davis had been engaged in practice in Randolph county before his graduation, and was entitled to a *pro forma* certificate. He passed a very good oral examination;

it was not convenient to subject him to a thorough written examination; and under the circumstances the Examining Board did not think it important. Since Dr. Davis was entitled to a certificate *pro forma* he should not have been examined at all. But no matter what the circumstances are, every examination that is made at all, should be thorough and complete.

The Shelby County Board reports the examination of—

Geoge A. Weldon, M. D., Atlanta Medical College, 1882. Certificate granted.

Henry Downes Geddings, M. D., South Carolina Medical College, 1880. Certificate granted.

Joseph Johnson, M. D., Miami Medical College, 1883. Certificate granted.

Edward P. Lacy, M. D., Vanderbilt University, 1883. Certificate granted.

The examination papers in these cases failed to reach the State Board during the session. They have been received by the Senior Censor since the adjournment, in very bad order. They do not include medical jurisprudence, public and private hygiene, and medical ethics, but otherwise the examinations seem to have been fairly well done.

The Sumter County Board reports the examination of—

Joseph F. Moore, M. D., Alabama Medical College, 1882. Certificate granted.

William Luther Turk, M. D., University of Tennessee, 1882. Certificate granted.

William Pace Kelly, M. D., Alabama Medical College, 1882. Certificate granted.

NOTE BY THE SENIOR CENSOR.—These examinations were not received until after the adjournment of the Association, and they were not therefore submitted to the State Board for their opinion. I am very sorry to have to state that they were, so far as the evidence of the papers goes to show, extremely imperfect, embracing only a few questions in

practice and surgery, and the written answers amounting to no more than two pages of letter paper. Much more comprehensive and satisfactory papers received the grave censure of the Board and of the Association. The oral examinations are reported to have been good.

The Tallapoosa County Board reports the examination of—

Edward Miller Pharr, M. D., Vanderbilt University, 1882. Certificate granted.

William Fletcher Pearson, M. D., Alabama Medical College, 1882. Certificate granted.

William F. Irvin, M. D., Louisville Medical College, 1882. Certificate granted.

We have to report the scope of these examinations defective. So far as appears from the papers the candidates were examined in only five branches of medicine—Anatomy, Physiology, Surgery, Practice, and Obstetrics. We therefore recommend that we be authorized to notify the Board of Medical Examiners of Tallapoosa county that this Association regard with grave dissatisfaction the laxity with which their examinations were made during the past year.

The Tuskaloosa County Board reports the examination of—

T. L. Hocut, M. D., Atlanta Medical College. Certificate refused.

The papers in this case have been received since the adjournment of the session of the Association, and in very bad order.

The Walker County Board reports that no examinations were made in that county in 1882.

The Wilcox County Board reports the examination of—

Edwin Dock King, M. D., Alabama Medical College, 1881. Certificate granted.

David Finis Gaston, M. D., University of Louisiana, 1882. Certificate granted.

Alphonze B. Curtis, M. D., Alabama Medical College, 1882. Certificate granted.

This board also reports the examination preliminary to the beginning of the study of medicine, of John M. McDaniel, and E. L. McDaniel, both successful.

These examinations seem to have been well done; but the papers are so mixed up that we have been unable to tell what answers were made by each of the several candidates. It is to be hoped that this board will send its papers up hereafter in better order.

PART III.—THE REPORT OF THE COMMITTEE OF PUBLIC HEALTH.

THE WORK OF THE STATE BOARD OF HEALTH.

During the past year the Committee of Public Health have had no occasion to meet in special session. A brief sketch of the work done by our order, and under our authority, here follows:

YELLOW FEVER.

Yellow fever made its appearance in Pensacola, Florida, in August of last year. Pensacola is only forty-four miles from the town of Whiting, otherwise known as Pensacola Junction, in the State of Alabama. There was imminent danger, therefore, of the introduction of the pestilence into this State; and the Junction being the gateway through which it was most likely to make its entrance was the point that needed to be carefully guarded. The State Health Officer was accordingly ordered to make that point his headquarters during the continuance of the epidemic, and to take such measures as to him might seem advisable, within the limits of the powers and means of the State Board, for the protection of the State. A full account of his opera-

tions there will be found in his special report on yellow fever and quarantine, which will be found in its proper place.

STATISTICAL BLANKS.

The following blank forms for the collection, registration, and tabulation of vital and mortuary statistics have been prepared and printed by this board, and such of them as are needed by the health authorities of the counties can be had by application to the State Health Officer.

Form No. 1.—Certificate of Birth.

Form No. 2.—Certificate of Death.

Form No. 3.—County Health Officer's Monthly Report.

Form No. 4.—Annual Report of Deaths, for counties and towns.

Form No. 5.—Annual Report of Births, for counties and towns.

Form No. 6.—Annual Report of Deaths by Causes, Colors, Sexes, Months, Ages, and Localities, for counties and towns.

Form No. 7.—Annual Report of Deaths by Causes, Colors, Sexes, and Ages, for counties and towns.

Form No. 8.—Clinical Record for noting the symptoms and treatment of cases.

Form No. 9.—Register of Births, for counties, towns, and Beats.

Form No. 10.—Register of Deaths, for counties, towns, and beats.

Other forms will be prepared from time to time as occasion may arise for their use.

EXPENDITURES.

The expenditures of the Board for the fiscal year ending the 31st day of March, are duly recorded in the account current, which here follows:

THE STATE BOARD OF HEALTH, *In Account with the State of Alabama:*

1882		RECEIPTS.	DR.
April	13.	To balance on hand	$ 25 68
May	1.	To cash from Auditor	200 00
June	1.	To cash from Auditor	200 00
July	1.	To cash from Auditor	200 00
Aug.	1.	To cash from Auditor	200 00
Sept.	1.	To cash from Auditor	200 00
Oct.	1.	To cash from Auditor	200 00
Nov.	1.	To cash from Auditor	200 00
Dec.	1.	To cash from Auditor	200 00
1883.			
Jan.	1.	To cash from Auditor	300 00
Feb.	1.	To cash from Auditor	200 00
March	1.	To cash from Auditor	200 00
April	1.	To cash from Auditor	200 00
		To total receipts to April 1st	$2,525 68

1882.		CREDITS.	CR.
May	1.	By Health Officer's salary for April	$ 150 00
	10.	By Health Officer's expenses, voucher No. 1	10 00
	15.	By Health Officer's expenses, voucher No. 2	38 40
June	1.	By Health Officer's salary for May	150 00
	10.	By Health Officer's expenses, voucher No. 3	16 10
July	1.	By Health Officer's salary for June	150 00
	1.	By cash paid Barrett & Brown, voucher No. 4	78 50
Aug.	1.	By Health Officer's salary for July	150 00
	29.	By Health Officer's expenses, voucher No. 5	34 15
Sept.	1.	By Health Officer's salary for August	150 00
	1.	By Health Officer's expenses, voucher No. 6	17 55
Oct.	1.	By Health Officer's salary for September	150 00
	23.	By Health Officer's expenses, voucher No. 7	60 06
Nov.	1.	By Health Officer's salary for October	150 00
	1.	By Health Officer's expenses, voucher No. 8	55 21
Dec.	1.	By Health Officer's salary for November	150 00
	12.	By Health Officer's expenses, voucher No. 9	15 80
1883.			
Jan.	1.	By Health Officer's salary for December	150 00
	6.	By cash paid W. D. Brown & Co., voucher No. 10	141 25
Feb.	1.	By Health Officer's salary for January	150 00
	23.	By Health Officer's expenses, voucher No. 11	23 70
March	1.	By Health Officer's salary for February	150 00
	28.	By cash paid W. D. Brown & Co., voucher No. 12	166 25
	28.	By Health Officer's expenses, voucher No 13	11 30
April	1.	By Health Officer's salary for March	150 00
		Total credits	$2,468 27

SUMMARY.

To total receipts for the year	$2,525 68
By total expenditure for the year	2,468 27
To balance	$57 41

THE WORK OF THE COUNTY BOARDS OF HEALTH.

During the past year, we have endeavored to secure greater thoroughness on the part of the county boards of health in the supervision of the public health and the collection of vital statistics. In several of the counties very gratifying progress has been made; and amongst these may be specially mentioned the counties of Blount, Calhoun, Choctaw, Conecuh, Dallas, Limestone, Lowndes, Pickens, Sumter, and Tallapoosa. These have not all achieved equal excellence, but there has been improvement in all. In other counties, the work has gone on about as it did in the year covered by our previous report; while in others still it has been done in such extremely imperfect fashion as to be of almost no value at all. For the details, we refer to the accompanying report of the State Health Officer.

It is very evident that in most of the counties the work has been thrown almost exclusively on the county health officers, the Committees of Public Health seeming either not to have appreciated the importance of the functions with which they have been endowed in the plan of organization of the county societies, or else to have systematically and wilfully neglected any attempt towards the discharge of their official duties. It has even happened in more than one instance that the position of county health officer has been allowed to remain vacant for months, to the great detriment of even the imperfect work that was in process of performance. Surely we have the right to expect something better than this; and we respectfully suggest to these committees that they make themselves familiar with their duties by careful study of the Fourth Chapter of the Book

of the Rules, with the hope that the knowledge thus obtained may provoke them to more earnest and efficient work.

THE DUTIES OF THE ASSISTANT HEALTH OFFICERS.

Just now, the special point in our plans of procedure that requires special attention is this, namely:

The efficient organization of the subordinate health districts or beats within the counties, and the development of proper energy and efficiency on the part of the Assistant Health Officers.

How is this to be done? A considerable number of Assistant Health Officers have already solved this problem for themselves; and all the others could succeed equally well if they would only give their minds and hearts and a little time to the work. Nevertheless, a few suggestions may not be amiss.

(1) The health districts should not be too large; and their boundaries should be accurately known, so that no part of the territory of the county would be left without supervision, and so that one Assistant Health Officer would not trespass on the domain of another.

(2) Every Assistant Health Officer should hold himself thoroughly responsible for the district under his charge; and should make it a matter of pride, as well as of duty, to obtain returns of absolutely all of the births and deaths occurring in it.

(3) He should make, in a book kept for that purpose, a complete Medical Directory of his district; including in it the names, residences, and post-office addresses of all the resident doctors and midwives, and of all the doctors and midwives residing in adjacent districts whose practice extends into his; and where it seems advisable, he should appoint sub-assistants to take charge of specially designated plantations or neighborhoods.

(4) He should confer with all these; instruct them in their duties; arrange plans of communication; furnish them with blank certificates for the return of the births and

deaths; and he should make it an inflexible rule to have a report from every one of them about the first of every month; said report to include all the births and deaths occurring in the practice of the reporter, or under his or her observation, during the preceding month; or if no births or deaths have so occurred, the report should be made all the same, to state that fact. This is the keystone of the whole fabric, namely: *That every doctor and every midwife should be heard from at least once in every month.*

(5) He should keep a Register of Vital Statistics for his district or beat, in which should be carefully entered every birth and every death occurring in it. He should make it a matter of special pride and emulation to keep this register in perfect order; to have it carefully and elegantly written up; and in every way to make it a complete and trustworthy record. Loose sheets, ruled in the same way as the County Registers, are furnished to Assistant Health Officers for this purpose. It is much to be regretted that we are not able to furnish bound volumes; but while the cost of a single volume is small, the aggregate cost for the whole State would be large. In many instances, perhaps, if the proper representation was made to them, the county commissioners would pay for them. In some cases, the expense has been borne by the County Health Officers out of their scanty salaries. In other instances still, the Assistant Health Officers themselves may be willing to pay for their own Registers. This question of Registers is one of very great importance, and it is to hoped that in some way the problem of how to get them will be solved in all the counties.

(6) He should, not later than the tenth of every month, make to the Health Officer of the county a report of his stewardship for the previous month; and this report should include, in addition to the return of the births and deaths, a list of delinquent doctors and midwives, and a statement of the prevalent diseases and sanitary condition of his district. If there are no delinquents—and if he does his full

duty there will be none—this fact should be expressly stated.

(7) He should, early in the month of January of each year, make to the County Health Officer a full circumstantial and statistical report, covering the whole of the preceding year, including an account of such endemic and epidemic diseases as may have been prevalent in his district, and a discussion of any difficulties he may have encountered in the collection of vital statistics. This annual report should also include the Medical Directory for his district, revised and corrected to date.

(8) If he receives certificates of births or of deaths occurring in other districts than his own, he should duly forward them to the County Health Officer, and should, at the same time, notify the Assistant Health Officer of the district in which the said births or deaths did occur, of all the facts, so as to enable him to make his Register complete.

(9) In like manner, whenever the County Health Officer receives the return of a birth or of a death, whether directly or at second hand, through any other medium than that of the Assistant Health Officer of the district in which it occurred, he should at once notify said Assistant Health Officer of all the facts, so as to enable him to make his Register complete.

(10) In every county, the County Health Officer and the Assistant Health Officers of the county should confer together fully and freely, whenever opportunity offers, in regard to the difficulties, details and methods of their work, so that they may all be liable to act together intelligently and harmoniously for the accomplishment of a common purpose.

(11) If, in any county, any Assistant Health Officer should prove gravely derelict or conspicuously inefficient in the discharge of his duties, as here given in outline, the Health Officer of the county should at once give the matter his earnest attention; should make a formal report of it to the Committee of Public Health, and everything that is

reasonably possible should be done, and done promptly, to correct the evil.

(12) The omniprevalent sins, the sins that lead to more failures of well projected enterprises, and more collapses of ambitious aspirations than all the rest put together, are negligence and procrastination. Let every one connected with the administration of the health laws in Alabama, therefore, make one resolution and act upon it, namely: TO DO TO-DAY'S WORK TO-DAY. If this is done, there need be no fear of the result.

THE SHIP ISLAND QUARANTINE STATION.

The following communication from the National Board of Health has been laid before us, and in consideration of the fact that the Ship Island Quarantine Station has been of essential service in protecting Alabama from invasion of yellow fever by furnishing our seaport, Mobile, with a refuge station to which infected vessels may be sent for detention, disinfection, and other preventive treatment; and in consideration also of the facts mentioned in the communication from the National Board of Health, we recommend that we be authorized to memorialize the President of the United States, and to request that he will appropriate out of the epidemic fund, set aside by Congress for such use, a sufficient sum to secure the continuance of the quarantine at Ship Island during the coming summer:

NATIONAL BOARD OF HEALTH,

WASHINGTON, D. C., March 26, 1883.

Dr. Jerome Cochran, Health Officer, Alabama:

DEAR SIR—Enquiries having been received at this office concerning the action to be taken by the National Board of Health during the yellow fever season, I have been instructed to communicate to you the intentions of the Board, so far as they can be formed with certainty under present conditions.

The law of 1879, under which the Board sustains its refuge stations at Ship Island, Mississippi, Sapelo Sound, Georgia, and Elizabeth River, Va., and its inspection service at New Orleans, Louisiana, and on the Mississippi River, will expire on June 2d next.

There has, however, been appropriated by the Sundry Civil Appropria-

tion Bill of March 3d last, the sum of one hundred thousand dollars ($100,000) to be used by the President in case of actual or threatened epidemic in aid of State and local boards, or otherwise in his discretion, for preventing and suppressing the disease, and maintaining quarantine at points of danger.

As the Board has the authority and the means to open its stations in aid of State and local boards for the prevention of the introduction and spread of yellow fever, it proposes to do so sometime in May next, to co-operate with the local authorities as heretofore, and to continue the work until its authority shall have expired. If, in the meantime, the President should come to the assistance of the Board with the epidemic appropriation placed at his disposal, the work can be continued until the close of the season of danger; but, should the Board be disappointed in this, its power to aid will cease, and State and local authorities will have to take such action in the case as may seem good to them.

I am, sir, with much respect,

CH. SMART, Maj. and Surg. U. S. A.,
Secretary N. B. H.

The Memorial authorized by the Association in accordance with the aforesaid recommendation was duly prepared and forwarded to the President, and is here subjoined:

THE MEMORIAL OF THE BOARD OF HEALTH OF THE STATE OF ALABAMA.

To his Excellency the President of the United States:

We have the honor to represent to your Excellency the following facts:

(1) That the Quarantine Station at Ship Island, which has been maintained during the last three years under the management of the National Board of Health, has been of essential use in protecting the Gulf Ports of Alabama and Mississippi against invasions of yellow fever.

(2) That none of these Ports have the means of establishing quarantine stations so equipped and conducted as to be able to deal with infected vessels in a thoroughly satisfactory and efficient way, by unloading, disinfection, etc.

(3) That this want has been supplied to the ports mentioned by the Ship Island Station, which has been used by several of them as an inspection station, and by all of them as a refuge station to which infected vessels could be sent for disinfection, detention, and such other treatment as may have seemed necessary.

(4) That appreciating the great value of this station as an aid to the local quarantines in the ways we have indicated, we should regret very much to see it discontinued.

(5) That we have been informed that it cannot be continued for want of money to defray the expenses of its maintenance unless your Excellency should apply to that object such sum as may be needed out of the $100,000

appropriated by Congress to assist local authorities in the work of opposing the introduction and spread of epidemics.

(6) That we therefore respectfully ask that so much of this epidemic fund as may be necessary be appropriated, in such way as to your Excellency may seem best, to secure the continuance of this Ship Island quarantine station during the coming summer.

(7) That we very cheerfully bear testimony to the efficient and satisfactory way in which this station has been heretofore conducted.

With the hope that your Excellency will give prompt and favorable consideration to this memorial, we have the honor to subscribe ourselves, etc.

Signed by the Board.

MISCELLANEOUS RECOMMENDATIONS.

(1) In view of the large amount of work now demanded to be done by the State Board of Health and its executive officer, and the need of proper facilities for the filing and preservation of the large accumulation of Official Documents now on hand and constantly increasing, we have authorized the State Health Officer to obtain in the City of Montgomery rooms suited to the purpose indicated, and to be known as the office of the State Board of Health, and to furnish the same; rooms in the Capitol Building to be preferred if they can be had; otherwise said rooms to be rented at the expense of the Board.

(2) We have also authorized the State Health Officer to employ a clerk, from time to time, at an expense not to exceed three hundred dollars a year.

(3) Inasmuch as the various health reports and other volumes received in exchange for our Transactions and other publications will be frequently needed for reference by the health officials of the State; and for the further reason that they can in this way be more efficiently cared for; we recommend that all such exchanges be transferred to the rooms of the State Board of Health.

PART IV.—REPORTS OF THE STATE HEALTH OFFICER.

THE WORK OF THE COUNTY BOARDS OF HEALTH.

It was my purpose to have given under this head a sketch of the work that has been done by each one of the County Boards of Health; but it has not been possible for me to go over the large mass of Reports I have received so as to compile the data necessary for such an exhibit. Two months on quarantine duty and two months in attendance of the Legislature have trenched so heavily on my time that for almost the first time in my life I have got behind.

Perhaps, after all, the writing of these little histories may just as well be deferred, for another year, since a goodly number of them as things now stand, would furnish matter not specially fitted to excite our feelings of satisfaction; and it is to be hoped that by another year the most of these will be able to make a better showing.

In the meantime I myself do not feel discouraged. The success in some of the counties has been such as to demonstrate the feasibility of our plan for the collection of statistics, and that of itself is a great gain. We presented our plan as wholly untried, as an experiment of doubtful issue, as an attempt to solve a problem hitherto considered as insoluble—the problem, namely, of how to collect statistics of births and deaths in sparsely settled counties without imposing upon the public an expense out of proportion to the results accomplished. I think, then, that to have demonstrated that this can be done is of itself a great step forward.

In the meantime, instead of the special notices of the several county boards of health which I had contemplated, I submit herewith an exhibit in tabular form of the results actually accomplished in the collection of vital statistics in the organized counties. This table, if carefully studied, will show almost all that could be told of the efficiency or want of efficiency of the several boards.

TABULAR STATEMENT OF BIRTHS AND DEATHS FOR 1882.

COUNTIES.	Total Population, 1880.	White.	Black.	Total Births.	Rate per M.	White Births.	Rate per M.	Colored Births.	Rate per M.	Total Deaths.	Rate per M.	White Deaths.	Rate per M.	Colored Deaths.	Rate per M.
AUTAUGA, entire	13108	4397	8711	....	....	....	....	....	....	....	9.77	....	7.51	....	1021
" exclusive	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Prattville	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
BARBOUR, entire	33979	13091	20888	502	14.773	250	19.077	252	12.064	307	9.032	105	8.021	202	9.670
" exclusive	27979	....	....	366	13.180	....	....	....	....	189	6.754	....	....	....	....
Eufaula	5000	....	....	124	24.808	....	....	....	....	110	22.000	....	....	....	....
Clayton	100	....	....	12	11.000	....	....	....	....	8	8.000	....	....	....	....
BIBB, entire	9487	5887	3600	....	....	....	....	....	....	71	7.48	43	7.33	28	7.77
BLOUNT, "	15369	14210	11.59	510	32.848	477	33.228	33	28.18	209	13.461	179	12.469	30	25.619
BULLOCK, "	29066	6944	22122	550	18.922	195	28.040	355	16.048	156	5.363	57	8.208	99	4.477
" exclusive	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Union Springs	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
BUTLER, entire	19649	10684	8965	390	19.847	229	21.441	161	17.968	180	9.190	105	9.832	75	8.377
" exclusive	17178	....	....	271	15.774	....	....	....	....	129	7.506	....	....	....	....
Greenville	2471	....	....	119	48.178	....	....	....	....	51	20.65	....	....	....	....
CALHOUN, entire	19600	14150	5450	597	30.45	451	31.87	146	26.78	271	13.82	189	13.35	82	15.00
" exclusive	16555	12121	4430	458	27.72	362	29.85	96	21.67	172	10.38	121	9.97	51	11.51
Anniston	1275	850	425	61	47.00	51	60.00	10	21.17	56	43.92	45	52.94	11	28.88
Jacksonville	895	585	310	31	34.63	12	20.51	19	61.29	15	16.75	11	18.80	4	12.90
Oxford	875	590	285	47	53.71	25	42.37	22	77.19	28	32.00	12	20.33	06	56.10
CHAMBERS, entire	23440	11364	12076	270	11.514	165	14.959	98	8.115	103	4.394	59	5.191	43	3.560
CHILTON, "	10793	8651	2142	105	9.731	97	11.212	17	7.943	....	....	....	....	....	....
CHOCTAW, "	15659	7361	829	368	23.563	209	28.393	159	19.159	173	11.051	81	11.005	90	10.843
COLBERT, "	16163	9203	6950	....	....	....	....	....	....	....	....	....	....	....	....

CONECUH, entire	12605	6224	6381	333	27.211	200	32.113	133	3.	106	8.409	51	8.194	55	8.619
" exclusive	11580	5609	5971	310	26.839	185	33.036	125	20.934	93	8.031	46	8.204	47	7.872
Evergreen	1025	615	410	23	22.43	15	24.391	8	19.513	14	13.658	5	8.130	11	21.951
COOSA, *from September 1st*	15113	10050	5063	110	21.716	84	24.071	26	15.405	47	9.283	33	9.849	14	82.92
DALLAS, entire	48433	8425	40008	784	16.90	216	26.34	564	26.34	585	14.59	122	2634	463	11.59
" exclusive	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Selma	7505	3425	4080	228	31.71	106	39.54	122	29.90	252	33.57	63	18.39	189	41.42
ETOWAH, entire	15398	12896	2502	294	19.158	263	20.470	31	12.400	119	7.722	96	7.443	22	8.792
GREENE, "	21931	3765	18166	329	15.001	72	19.010	257	14.144	180	8.663	41	10.889	150	7.651
" exclusive	20830	3304	17526	310	14.920	67	20.293	243	13.865	158	7.585	35	10.606	123	7 018
Eutaw	1101	461	640	37	35.444	12	26.030	25	30.900	22	20.000	6	13.000	16	25.000
HALE, entire	26553	4903	21650	277	10.43	91	18.57	186	8.59	176	6.62	36	7.34	140	6.46
" exclusive	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Greensboro	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
JACKSON, entire (*From August 1st.*)	25114	21075	4039	60	5.733	55	6.263	5	2.97	.....	.....	.....	.....	.....	.....
" exclusive	24114	20200	3914	47	19.490	44	2.178	3	6.784	.....	.....	.....	.....	.....	.....
Scottsboro	1000	875	125	13	31.70	11	20.17	2	38.40	4	9.6	3	8.323	1	19.02
JEFFERSON, entire	23272	18219	5053	699	30.03	529	28.43	127	25.14	433	18.60	268	14.70	165	32.67
" exclusive	14272	12569	1703	564	34.19	481	26.42	83	14.44	321	13.79	196	10.75	125	24.37
Birmingham	9000	5650	3350	135	15.000	91	16 106	44	12.695	125	13.888	72	12.738	53	15.825
LAWRENCE, entire	21391	12640	8751	186	8.69	139	10.99	47	5.37	131	6.124	70	5.537	61	6.970
LEE, "	27262	12217	15045	142	5.205	95	7.776	47	3.136	109	3.97	51	4.174	58	3.841
" exclusive	14272	12569	1703	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Opelika	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
LOWNDES, entire	31178	5638	25531	885	38.385	153	27.13	732	28.671	423	13.56	78	13.83	345	13.51
LIMESTONE, "	21603	12000	9603	517	23.931	263	21.917	251	26.450	266	12.31	101	8.42	165	14.18
" exclusive	20590	11306	9284	498	24.174	248	21.946	250	26.939	255	12.141	87	7.699	163	17.341
Athens	1013	694	319	19	18.763	15	21.700	4	12.539	16	15.795	14	20.170	2	6.269
MADISON, entire	38000	19250	18750	387	10.184	253	13.147	134	7.154	223	5.868	79	4.103	144	7.680
" exclusive	33000	16500	16500	300	9.121	201	12.181	99	6.000	111	3.363	57	3.455	54	3.272
Huntsville	5000	2750	2250	87	17.400	52	18.909	35	15.555	112	22.400	22	8.000	90	40.000
MACON, entire	17371	4587	12784	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
" exclusive	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

TABULAR STATEMENT OF BIRTHS AND DEATHS FOR 1882—Continued.

COUNTIES.	Total Population, 1880.	White.	Black.	Total Births.	Rate per M.	White Births.	Rate per M.	Colored Births.	Rate per M.	Total Deaths.	Rate per M.	White Deaths.	Rate per M.	Colored Deaths.	Rate per M.
Tuskegee	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
MARENGO, entire	30889	7276	23613	418	13.531	124	17.040	294	12.323	201	6.50	72	9.89	129	5.46
" exclusive	29475	6569	22906	371	12.58	108	16.44	263	11.48	167	5.66	58	8.82	109	4.32
Demopolis	1414	707	707	47	33.23	16	22.63	31	43.84	34	24.04	14	19.801	20	28.871
MOBILE, entire	48653	27187	21466	779	16.013	432	15.894	347	16.169	934	19.196	458	16.850	472	22.174
" exclusive	17358	10260	7098	91	5.241	54	5.263	37	5.211	112	6.451	56	5.456	56	7.887
" City of	31295	16927	14368	634	20.262	329	19.432	304	21.229	798	25.496	380	22.449	418	29.201
MONROE, entire	17091	7780	9311	139	8.123	100	12.854	39	4.118	65	32.18	38	4.884	27	2.878
MONTGOMERY, entire	52356	13457	38809	...	...	...	...	...	...	468	8.96	144	7.80	335	8.61
" exclusive	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
" City of	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
MORGAN, entire	17000	12000	5000	255	15.00	154	12.83	101	20.200	117	6.882	79	6.583	38	7.600
" exclusive	15500	11250	4250	208	13.419	136	12.088	72	16.941	87	5.612	61	5.422	26	6.117
Decatur	1500	750	750	46	30.66	19	25.33	27	36.000	30	20.00	18	24.000	13	17.33
PERRY, entire	30741	7150	23591	...	...	...	...	...	...	...	...	...	...	...	...
PICKENS, "	21479	9132	12347	261	12.151	174	19.053	87	7.089	122	56.84	54	5.913	68	5.506
PIKE, "	19453	13344	6129	426	21.89	354	26.56	72	11.58	114	5.860	79	5.929	35	5.710
" exclusive	17097	12015	5082	339	19.824	277	23.083	61	12.000	90	52.62	62	5.160	28	5.511
Troy	2356	1309	1047	87	36.926	77	58.823	10	9.560	25	10.611	17	12.987	8	7.640
RANDOLPH, entire	16575	13155	3420	240	14.479	239	18.167	...	...	40	2.413	32	2.431	8	2.239
SHELBY	17236	12253	4983	355	20.363	288	23.503	63	12 640	139	8.065	93	7.589	43	9.233
ST. CLAIR	14462	11621	2841	267	18.456	235	20.222	32	11.263	...	...	...	...	...	...
SUMTER, entire	28728	6451	22277	646	22.488	156	24.186	490	22.037	262	9.120	78	12.091	184	8.214
" exclusive	27028	5721	21307	579	21.422	136	23.776	444	20.838	214	7.910	61	10.662	153	7.181

Livingston	740	370	370	27	35.148	7	18.916	20	54.05	10	21.621	10	24.324	6	18.918
Gainesville	960	360	644	40	41.66	13	36.111	26	41.500	31	32.292	7	19.444	24	40.000
Tallapoosa, entire	23500	16000	750	524	22.468	388	24.250	117	15.600	190	8.340	131	8.187	51	8.133
Tuscaloosa	24957	15216	9741	327	13.102	210	13.801	110	.1292	132	5.289	79	5.191	53	5.439
Walker	.....	.....	.....	....	.....	....	.....	....	.....	....	.....	...	.....	....	.....
Wilcox	.....	.....	.....	...	.....	....	.....	....	.....	....	.....	...	.....	....	.....

Note.—The average death rate in the United States, according to calculations based on the Census of 1880, is about 18.5 per thousand per annum. I am myself of the opinion that the rate is somewhat greater than this—nearer 20 than 18. We have no reason to believe that the average rate in Alabama is either much below or much above this general average. In some of the healthiest counties it may perhaps fall to 15, while in some of the more insalubrious counties it may rise to 25. The birth rate in Alabama ought not to be less than 40 to 50 per thousand per annum. Taking these rates as the basis of the comparison it will be easy to see from the above table that in most of our counties the collection of vital statistics has been very imperfectly done. But for all this, our success has been greater than in any other State that I know of where the effort to collect statistics has been made—greater I mean than the success anywhere else achieved within two and a half years after the commencement of the work—the length of time that our experiment has lasted.

REPORT ON YELLOW FEVER AND QUARANTINE.

VISIT TO PENSACOLA.

On the —— day of August, 1882, the City of Montgomery, on the advice of the Montgomery Board of Health, established quarantine against Pensacola. This action was taken, in a spirit of abundant caution, in consequence of various rumors of the existence of yellow fever in Pensacola, Florida—rumors sufficiently abundant but not very definite or authentic. On the 14th of August I received a telegraphic dispatch from the President of the Montgomery Board of Health requesting me to visit Pensacola and do what I could to ascertain the real facts of the case. This request was promptly complied with, and the history of my visit and investigation is best told by the reproduction of the Official Report made by me to the Montgomery Board of Health immediately after my return to Alabama; and it is accordingly here subjoined:

Dr. R. F. Michel, President of the Montgomery Board of Health:

DEAR SIR—I received your telegraphic request to visit Pensacola and investigate the reports of the existence of yellow fever there, on the evening of the 14th instant, and left for the designated point by the next southbound train. I reached Pensacola the next day, the 15th, at 6 o'clock p. m., and was handed immediately a dispatch from Dr. J. B. Gaston, Mayor of Montgomery, asking me to notify him by eight o'clock my opinion as to the existence of yellow fever in the city. I went at once to the office of the Pensacola Board of Health, and was assured by the Secretary, Dr. J. C. Whiting, with whom I was personally well acquainted, that there was no yellow fever in the city and had been none. I then interviewed several other physicians and several non-professional citizens, also of my acquaintance, and the result was that I felt warranted in telegraphing Dr. Gaston at 7 o'clock as follows: "I am fully satisfied that there is no yellow fever here, and has been none—not even a suspicious case." More extended enquiry that evening and next day confirmed me in this opinion. That there had been at Pensacola this summer no yellow fever ashore; that there had been genuine cases in the shipping at the quarantine station, and at least three suspicious cases in a vessel at one of the wharves, was freely admitted. In relation to these I will go into the details presently.

There had been, also, two deaths in town that had attracted some attention.

In an Italian family named Rosario, the mother and two daughters were sick. The cases were treated at first by Dr. Fordham, and subsequently by Dr. Hargis. The older of the two girls had *suppressio mensium*, and cerebral congestion, and died. The two other cases yielded promptly to quinine. The attending physicians agreed in the opinion that all the cases were malarial. No connection of any sort could be traced between these cases and the shipping.

The captain of the bark Vincenzio Acçame was brought from his vessel

sick, and died after an attack of six days duration on the 13th instant. His case was pronounced by the attending physicians to be malarial fever. The vessel hailed from Port Elizabeth in Algoa Bay, latitude 35 degrees south—a very healthy place where yellow fever has never been known to prevail, and reached Pensacola after a voyage of sixty days.

The principal occasion of the recent excitement was the occurrence of three cases of sickness on the Spanish bark Saleta, in regard to which the facts, as I have been able to gather them, are as follows:

The Saleta arrived at the Pensacola quarantine station on the 2d day of July, from Matanzas, on the Island of Cuba, with all well on board, and a clean bill of health, after a voyage of ten days. Matanzas was then believed to be free from yellow fever, although it is now believed that at the time there were a few cases among the shipping. The vessel was nevertheless detained in quarantine twenty days. She discharged her ballast at quarantine, was fumigated and otherwise disinfected, and was discharged on the 22d of July.

From the quarantine station the Saleta proceeded to the railroad wharf to load with lumber, and remained there 18 days, namely, until the 10th instant, when she cleared for Spain.

It seems that about the 5th of August the mate was taken sick. He was seen by Drs. Herron and Hargis, at 12 o'clock, p. m., on the 9th, and died on the morning of the 10th. It is to be regretted that no clinical history of this case is to be had. The doctors considered him to be dying when they first saw him. He was delirious, did not turn yellow, and did not have black vomit—did not, in fact, vomit at all.

The Captain's account of the case is that the man had been drinking excessively and carousing with abandoned women ashore; that he had lost his appetite so that he took hardly anything to eat; that finally he became the victim of hallucinations, like a man with *mania a potu*. He imagined that women came to him through the skylights of the cabin, and that he had locked one of them up in the clock, upon which piece of furniture he accordingly lavished all sorts of caresses and endearments.

Drs. Herron and Hargis, while not sure of the diagnosis, believe that the man died of yellow fever.

The cabin boy, aged about 14 years, and a sailor were taken sick just before the visit of the doctors on the 9th. They believe that these also had yellow fever, although they could not venture on a positive diagnosis in the very beginning of the attacks. It is proper to add that Dr. Herron and Dr. Hargis are both physicians of high reputation, and both well acquainted with yellow fever, so that any opinion of theirs is entitled to the most respectful consideration.

If we assume, in deference to the opinion of the attending physicians, that these were truly yellow fever cases, we are confronted with a very difficult problem when we undertake to trace them back to the causes of infection which gave them origin.

If the infection was received in Matanzas, we would have to account for

the prolongation of the period of incubation to the very great length of forty-eight days—the usual average period being only about five days.

If the vessel itself was infected we have to account for the escape of the crew during the same period of time, in a vessel where there was no cargo to be broken up, and which had been fumigated and disinfected at quarantine.

If we set aside both of these suppositions there is only a third one to be suggested, namely, that these unfortunates must have picked up the infection in Pensacola itself—a supposition so improbable that it must be peremptorily set aside.

But on the presumption that the cases were truly yellow fever cases, the practically important problem is this: Whether they are likely to serve as a focus of infection whence the fever may be disseminated in Pensacola. There is no reason to believe that infection can occur across any considerable interval of space. I think most of those who have had much practica acquaintance with the propagation of epidemics in cities will agree with me that yellow fever will not commonly cross a street unless it is carried across. But the Saleta was moored a distance of several hundred yards from any inhabited house. There can be question of special apprehension then only in regard to such persons as are known to have been actually on board the vessel. Among these was a man, whose name I have forgotten, who was with the captain a great deal up to the death of the mate. This man, in a few days, left the city for Charleston, South Carolina. The only other persons known to be on board were a Spanish stevedore and a gang of eight men—all negroes. These have all been under observation ever since the departure of the vessel—this being the eighth day. They are men not much liable to take yellow fever under any circumstances. They were engaged in the hold of the ship, whilst the sickness was in the cabin. And, lastly, more than the usual period of incubation has passed since their connection with the ship ceased. It would, therefore, seem reasonable to hope that whatever danger there may have been is now happily passed.

It has been said that the Saleta, at the time the mate was visited by Drs. Herron and Hargis, was found to be extremely filthy, and it has hence been argued that the cleansing at least must have been negligently attended to by the quarantine physician. I had no opportunity of ascertaining the facts in relation to this point. But this much at least can be said on the other side. That this visit was made eighteen days after the ship had been discharged from quarantine; that these gentlemen saw only the deck and cabin; and that these might very well have gotten filthy in eighteen days.

For the rest I have a large acquaintance with quarantines, and I can truly say that the regulations of the Pensacola quarantine are stringent, far beyond anything demanded by current quarantine theories. For instance, it has happened on several occasions that vessels that have undergone quarantine at Ship Island have been forced to serve another quarantine of ten days, because at Ship Island the cleansing and disinfection had been done without removal of the ballast.

There has been some talk about the escape of sailors from vessels in quarantine as if this was of common occurrence. As a matter of fact, only five have so escaped. Two of these were captured and sent back. The other three made their way to Mobile on the Mary Morgan, as I am told. To prevent anything of this sort. a steam launch patrols the quarantine station all night long.

In conclusion, I express my thanks to the Pensacola Board of Health for the extreme courtesy with which they treated me and for facilities they gave me in the investigation I had to make. Their order book and records were freely opened to my inspection; and a steam tug was placed at my disposal to visit the quarantine station. They impressed me as being earnestly desirous of doing their whole duty, and in all their decisions of special questions they gave the doubt in favor of the sanitary safety of their people.

I have the honor to remain, very respectfully,

JEROME COCHRAN,
State Health Officer.

My confident conclusion that up to the time of my visit there had been no yellow fever in Pensacola, except in the shipping, in the light thrown upon the facts by subsequent events, turns out to have been incorrect. And yet, with the assurances that I had with regard to the real character of these facts and assurances obtained at first hand, and from those who had the best right to know the truth about them, any other conclusion was out of the question. I reached Pensacola on the 15th of August, as already stated, and I believe that not even the backward glare of subsequent events has revealed the existence of any cases of yellow fever in the town at that time, so that my statement to that effect may stand without challenge. The cases on the Saleta were conceded to be yellow fever, although the evidence in regard to them was not at all clear; and in the meantime my belief, in view of all the facts, that it was not likely that infection would be conveyed from that unfortunate vessel to the city through the medium of the stevedores, roustabouts, and other persons who had been aboard of her, has been completely vindicated. None of these persons had yellow fever for many weeks after the outbreak of the epidemic, if, indeed, any of them ever had it at all. The captain of the Vincenzio Accame was taken sick on the 5th of August, the same day with the mate of the Saleta, and died on the 12th, two days later than his companion and friend, who died on the 10th. He was taken sick on his ship, was brought ashore and taken to the boarding house of Mrs. O'Neal, where he died. He was treated by Drs. Bouvier and Hargis, both of whom were familiar with yellow fever, and both of whom asserted that he did not die of that disease. None of those who nursed him had yellow fever. None of those who visited him had yellow fever. For six or eight weeks after his death there was no yellow fever at Mrs. O'Neal's; and none anywhere in that part of town. It is not strange, therefore, that I failed to discover yellow fever in this case. Upon what grounds the attending physicians, who at the time denied the epidemic character of the attack, have since been led to revise their diagnosis, I have had no

means of learning. The mate of the Accame died on the 25th. Seventeen white laborers and fifteen black laborers had been at work loading the vessel. None of these contracted the fever until long afterwards, if at all. Miss D. Rosario died on the 13th. Of the date of the attack, I have not been informed, but her illness, I believe, was a short one. She was treated by Drs. Bouvier and Fordham, and seen after her death by Dr. Hargis; and her case was not pronounced to be yellow fever. On the contrary, I was assured that she had suppression of the catamenia from some imprudence, and died of congestion of the brain, without any yellow fever emesis, and without any yellow fever discoloration of the skin, to say nothing of the singular problem of a suppressed hemorrhagic flow in the course of a malady so eminently hemorrhagic as yellow fever. Surely he must have been suspicious indeed to have suspected yellow fever here. There was, however, one suspicious circumstance to which I did not attach sufficient importance, namely: that so many doctors should have been concerned in the case. Again, I have to add the statement that I do not know upon what grounds the original diagnosis has been changed. Two other members of the Rosario family were subsequently sick, but recovered promptly, and provoked no suspicion, so far as I know.

These Rosario cases are of special importance in the history of this epidemic, if it is true, as I have heard, that they are now believed to have been the first local cases. I shall have occasion to return to their consideration when I treat of the origin of the fever. Just now, my purpose is to show that the conclusions I announced to the Montgomery Board of Health, on my return from Pensacola, were not hastily or illogically drawn.

THE OUTBREAK OF THE EPIDEMIC.

It is to be remembered that I am not writing a history of the epidemic, but only giving a rapid sketch of my own actions in connection with it. I returned to Alabama on the 18th. On the 27th, the Pensacola Board of Health, through its Secretary, Dr. J. C. Whiting, telegraphed to the Mobile Board of Health that there was no yellow fever in Pensacola, not even a suspicious case. On the 28th, the same officer telegraphed me at Blount Springs that three undoubted cases had been reported. I went immediately to Montgomery to consult with the members of the Committee of Public Health living there, and then to Mobile to consult the Mobile members. These all agreed that in any system of quarantine for the protection of Alabama, the town of Whiting, otherwise known as Pensacola Junction, was the point of greatest strategic importance; and that in spite of the restricted means and still more restricted powers of the State Board, it was expedient that the State Health Officer should make that place his headquarters during the continuance of the epidemic. I accordingly proceeded thither, arriving there on the 1st day of September. From this place, I addressed to those members of the State Board who had not already been consulted the following

CIRCULAR LETTER.

DEAR SIRS—There has been no time, since the announcement of yellow fever in Pensacola, to call a meeting of the Committee of Public Health. So, after consultation with the Mobile and Montgomery members, I have stationed myself at this place, to do what I can to prevent the entrance of the pestilence into Alabama. It is easy to see that this is the point of greatest danger, the point most likely to become infected itself, and most likely to transmit the infection to towns along the lines of the railroads passing through the State.

I have been able to make such quarantine arrangements as will be sufficient, I hope, to secure our safety; and I propose to remain on guard here until the danger is over, unless ordered away by the Committee.

I shall feel warranted to incur any expense that may seem necessary to the end in view, so far as the means at our disposal will allow; will keep myself thoroughly posted as to the progress of the fever; and will promptly furnish any information I may be able to get for the benefit of our county and city boards of health. Members of the Committee of Public Health to whom this circular is sent, will please notify me at once if what has been done, and what is here proposed, meets with their approval.

This circular was returned with the endorsement of Drs. B. H. Riggs, of Selma; M. H. Jordan, of Birmingham; Peter Bryce, of Tuscaloosa; J. J. Dement, of Huntsville; and J. R. Hoffman, of Athens—all the members of the Committee who had not been seen in person.

I traveled from Mobile to the Junction on the same train with Mr. Belknap, the Superintendent of the Mobile & Montgomery Railway. We talked over the situation, and he very freely promised that whatever measures I saw proper to advise, should, so far as his road was concerned, be carried into effect. Subsequently, Mr. Saltmarsh, Superintendent of the Pensacola Road, made similar promises.

FIRST WORK AT THE JUNCTION.

The same day that I reached the Junction, the citizens there, on the ground that the Pensacola Road had disregarded some of the quarantine rules they had previously established, had ordered that all communication, whether by passenger trains or by freight trains, between Pensacola and the Junction should be suspended. This order not only stopped the human exodus from the stricken city, but also stopped the transportation of the mails, all express business, and the passage to Pensacola by that route of provisions, medicines, and other necessary supplies. It accordingly created quite a commotion in Pensacola. I did not think that, with only a few cases of yellow fever in Pensacola, all confined to the same section of the city, that a complete embargo of all intercourse was at all necessary for our protection; and my first act was to persuade them to reconsider and recall the order in question—very much to the relief of Pensacola, and not at all, as the event proved, to the detriment of Alabama.

DISINFECTING THE MAILS.

A few days after my arrival, some of the local boards of health in Mississippi, along the Mobile & New Orleans Railroad, decided to quarantine against mails from Pensacola, and the post-office authorities appealed to me for assistance in the matter. I accordingly erected a small house for disinfecting purposes, and thereafter, to the end of the epidemic, regularly fumigated the mails and mail bags, and occasionally small express packages. My method with the mails was to empty the letters and packages into wide, low boxes, or trays, with open wire seive bottoms, which were supported on benches made of slats, and supplied for convenience of handling, with long handles. The mail bags were hung on pegs, with the bottoms up and the mouths open, so that the sulphur fumes could reach the inside as well as the outside. A few pounds of sulphur were then ignited, and the doors of the chamber closed. In this way, the small disinfecting chamber was kept filled with fumes of sulphur dioxide for some hours. I did not think it necessary to punch holes in the envelopes of the letters, as is done in some European quarantines. This process was generally considered satisfactory, and the mails were thereafter allowed to pass to their destinations. A few towns—two, I think—continued to exclude second-class matter; and one, namely, Birmingham, with what was thought an excess of precaution, continued to exclude letters. I may remark here that I know of no authentic instance in which letters, or even newspapers, have proved to be vehicles of infection. But that the mail bags may be the means of transporting yellow fever from one town to another, seems to be well established in regard to several outbreaks during the great epidemic of 1878, in towns on the railroads leading out of Memphis, in which the first cases occurred amongst persons who handled the mail bags and distributed the mails.

GETTING INFORMATION UNDER DIFFICULTIES.

Among the things I proposed to do at the Junction, one, which I regarded of some importance, was to obtain correct and reliable information of the daily progress of the fever in Pensacola. I needed this information as a basis upon which to arrange the details of our quarantine. To get at it in a perfectly systematic way, I applied to the Pensacola health authorities to furnish me with a daily list of new cases, giving the names of all the cases and the location of their residences, so that I might be able to know what parts of the city were infected, and what parts remained free from infection. I was promptly promised all that I wanted, but the promise was not kept; for the reason, as I learned when I pressed my demand for the facts, that neither the names or the localities of cases were reported to the board of health in any regular or systematic way.

It was a long time before the fever transcended the corporate limits of the city; but it did finally, in a few cases, make its appearance in several places at distances running up to twenty miles. In the meantime, the air was full of rumors. They assumed all possible shapes, and came from all points of the compass. All these, and their name was legion, I investigated promptly,

making use of the telegraph whenever it seemed necessary to do so. This took a good deal of time, and involved considerable cost.

SKETCH OF THE QUARANTINE.

The plan of our quarantine was sufficiently simple, but not on that account the less efficient. No passengers from Pensacola were allowed to stop anywhere within the limits of the State of Alabama, except that Mobile and Montgomery had quarantine stations for detention, and before entrance into either city it was necessary to undergo twenty days quarantine and to have all baggage thoroughly disinfected. The same rule obtained with reference to freights, except that, for a time, at least, Montgomery admitted fish on ice. One railroad town did not enforce quarantine at all, and did not have the fever. I think, however, that very few, if any, Pensacola people stopped there during the continuance of the epidemic. With the few exceptions mentioned there was absolute prohibition of the entrance into Alabama towns, or indeed, into any part of the territory of the State, of all Pensacola passengers and freights. The bulk of the quarantine expenses were born by Mobile and Montgomery, which cities had traveling quarantine inspectors on all passenger trains that were at all likely to bring Pensacola passengers into their limits. All of the principle towns had local quarantine officers or guards, whose duty it was to see that nothing contraband of quarantine was allowed to be put off the cars.

As long as passenger trains were run on the Pensacola road all passengers brought by them were transferred at the transfer station, which was at the Repton junction, into special cars on the Louisville and Nashville road. These cars were kept locked, were not entered even by the Conductors, and no one was allowed to leave them until they had passed beyond the northern boundaries of the State; and it was further provided that passenger cars so used should not be returned to the State until after frost. The exodus from Pensacola commenced before the existence of the fever had been officially announced; and within a very few days after the official announcement, and long before the pestilence became generally diffused through the city, the exodus of refugees almost entirely ceased. The consequences of these facts were two: (1) That the people fleeing from the epidemic did not carry the infection with them to any of the numerous places in which they sought asylum; and (2) That as there was nobody going into the city and very few coming out, the passenger trains on the Pensacola road ceased to be remunerative, and at my suggestion were discontinued. The business on the road was then reduced to a daily mail and express train, and such occasional freight trains as were required for the transportation of supplies. The freight cars thus used were not, for a long time, brought back to Alabama, but were allowed to accumulate on the side tracks in Pensacola and vicinity. There came a time, however, some weeks before the close of the epidemic, when the railroad authorities desired to have these cars returned to commercial uses, and this gave rise to some moves on the quarantine chessboard that I now proceed to discuss.

THE DISINFECTION OF EMPTY FREIGHT CARS, AND WHAT GREW OUT OF IT.

It was within a few days of the end of September that a train of seventeen empty freight cars was brought from the Pensacola road and left at Miles' siding, some four miles from the junction in the direction of Mobile, on the Mobile and Montgomery road. This was done without the knowledge or consent of any of the health officials of Alabama, and was unquestionably an outrage that deserved prompt and emphatic rebuke. It was, also, a blunder on the part of the railroad managers that led to much subsequent trouble. A few days later Mr. Williams showed me an order addressed to him by Mr. Superintendent Belknap, instructing him to have these cars disinfected under my supervision; and this without any previous consultation with me in regard to it. I decided, for reasons that need not be detailed here, to overlook this discourtesy and disinfect the cars. But I found myself in the predicament of having to satisfy the views in regard to disinfection of all the Boards of Health in Alabama without knowing what those views were. The simplest measures of disinfection, and, indeed, no disinfection at all except ventilation, would have satisfied me, while it might have fallen very far short of satisfying anybody else. I decided, therefore, to do the disinfection as thoroughly as I knew how with such means as were at my disposal. To this end I had the cars washed inside and outside with a saturated solution of sulphate of iron, and then fumigated the inside with burning sulphur.

In the meantime I drew up a statement of the facts as they had occurred, including a description of the method of disinfection I had made use of, and submitted it to the Boards of Health of Mobile and Montgomery, together with the request that they would communicate to me their opinions as to what would constitute an efficient disinfection under the circumstances. Both of the boards in question signified their approval of what I had done; and both of them, in answer to a special question, expressed themselves in favor of having the cars disinfected outside as well as inside.

While this consultation of mine was going on with these boards of health, another train of empty freights from Pensacola was side-tracked at the same place as before. Superintendent Belknap seems not to have approved of the way in which I had managed the previous disinfection. So this time he instructed the local agent to omit the inside and outside use of the sulphate of iron wash, and to restrict the disinfection to the sulphur fumigation of the inside, and he made no reference to me at all, thus quietly thrusting aside both myself and my supervision. In due time this train of cars was disinfected in accordance with Mr. Belknap's orders. I was determined that this sort of thing should not go on, and accordingly put a temporary stop to it by means that for the present, perhaps, had just as well not be put into print.

Within two or three days I received the decisions of the Montgomery and Mobile boards of health already alluded to; and under the influence of their logic the *status quo* as regards disinfection, was re-established. The disinfecting station was changed to Williams's Camp Ground, ten miles

south of the Junction, on the Pensacola road, and no further trouble occurred until the beginning of November, when Superintendent Belknap again went to work at the problem of disinfection. He got an expression of opinion from the Montgomery board of health to the effect that the coperas washings were no longer necessary. I had been acting in accordance with the expressed wishes of this board, but they did not do me the honor to notify me of this change of position, and although some days later Mr. Belknap had the grace to send me a copy of the opinion in question, the immediate result was an abrupt notification from Mr. Belknap to the effect that none of the health boards along the line of the railroad, from the Junction to the northern boundary of the State, exacted the disinfection with sulphate of iron, and that he would submit to it no longer.

I had confidently expected some such explosion as this and was fully prepared for it. I left the Junction for Mobile by the next train, having previously telegraphed to the Montgomery Advertiser newspaper the following statement:

"It becomes my duty to inform the people of Alabama, over whose safety from epidemic invasion I have been keeping watch at this place for the last two months, that I leave here to-day. The occasion for this action on my part may be briefly told. The State Board of Health, of which I am the executive officer, has no power either to make or enforce quarantine regulations. I have been able to be of some use here because up to this time I have had in the carrying out of my plans the consent and co-operation of the railroad authorities.

This consent and co-operation has now been withdrawn, on the ground that my requirements are vexatious and unnecessary. I have good reason to believe that this determination on the part of the railroad managers is intended to prepare the way for greater freedom and frequency of intercourse with Pensacola. What the result of this may be I am, of course, unable to foresee. If we have an early frost it will probably do no harm. If the frost should be as late in coming as it sometimes is, it is greatly to be feared that the fever will find its way into this part of Alabama. We can only hope for the best. In the meantime, since I can no longer control the quarantine policy of the railroad, I can no longer hold myself responsible for what may occur.

I have made satisfactory arrangements to have the disinfection of the mails continued. JEROME COCHRAN, M. D.,

Pensacola Junction, Nov. 5, 1882. State Health Officer."

The "greater freedom and frequency of intercourse with Pensacola," which I had foretold in the foregoing statement, was not slow to make a beginning. Hardly had my back been turned before a train of cars and a gang of negro laborers right out of the city of Pensacola broke through the quarantine at the Junction and passed into the State of Alabama. In this emergency the people of Pensacola Junction demanded the re-establishment of the quarantine, including the disinfection of freight cars, as it had been under my administration, and requested that I should return to my old

quarters and duties. They made the demand in a way that commanded compliance with it, and in four days after my departure I was again at my post, and wired the following message to the Advertiser:

WHITING, ALABAMA, November 9th.

I have returned to this place at the request of the people here, and on the distinct understanding that the same quarantine regulations should be enforced as were in operation when I left. I find the forebodings of my card of the 5th already fulfilled. One log train with engineer and train hands right out of Pensacola was run into this county on Monday, and I have reliable, although unofficial information, that it is the intention of the railroad authorities to put on two more at once. To-day a gang of negroes, with their baggage and tools, were brought into the county on the regular Pensacola train and put off in defiance of the orders of the local quarantine officer. A messenger has been sent to Pollard to report the fact to the County Health Officer, and it is hoped some steps will be taken to vindicate the law. In the meantime there is practically no quarantine here, and for all practical purposes intercourse is absolutely without restraint.

JEROME COCHRAN, M. D.,
State Health Officer.

In two or three days the Pensacola log train and the negroes with it, as also the gang from Molino, were gotten out of the State and the quarantine machinery moved on as it had done before the explosion came. A few days later still, namely on the ——, came the eagerly wished for frost, and the danger was over.

In the meantime Mr. Belknap naturally felt a little sore at his discomfiture and ventilated his vexation in the public prints. As a material part of the history I am writing, and also as one of the curiosities of quarantine literature, I reproduce his statement here as it appeared in the Advertiser. It will be seen that the Advertiser avowedly quotes from the Mobile Register, but the words which convey this impression are misleading. The version in the Advertiser is not the version in the Register in its integrity, but a revised, improved, and amended version, and not quite so vulnerable in its logic or in its facts. I publish this statement without other comment than to say that whenever it becomes necessary to do so, I stand ready to show that almost every separate proposition contained in it is either incorrect in fact, or else fallacious and misleading in the impression it is intended to convey:

THE L. AND N. ROAD AND DR. COCHRAN.

In response to the late card of Dr. J. Cochran, published in the Advertiser, Superintendent Belknap has furnished the Mobile Register with the following statement:

"The State Health Officer seems to report to the public in cards, instead of to the State Board of Health. Inquiries show that quarantine was declared at Montgomery on August 29th, and at Mobile on ——. Consultation was had at once between the Board of Health of Mobile county and the rail-

road authorities. Measures proposed by the latter were in substance endorsed. These were, a resident inspector at Pensacola Junction, traveling inspectors on trains north and south to Montgomery and Mobile, acting together with a local officer at each station to prevent the spreading of refugees, bridge watchmen to stop all tramps from crossing bridges and agents to mark all tickets of suspicious persons for information of the traveling inspector. This plan was adopted by Montgomery and other towns and counties and put promptly in operation by the railroads. Refugees were kept in separate cars and run out of the State without contact with the inhabitants. The fever increasing, the L. and N. management discontinued all passenger traffic on the Pensacola division. The health authorities sent Dr. Cochran to the Junction as resident observer.

He was considered and consulted by the railroad authorities as an expert, but all measures were taken in consultation with and by authority of the Board of Health in interest, or the proper legal officers. No changes at any time were made by the railroad officers without such consultation and authority. Freight continuing to go to Pensacola, and that line being blocked with empty cars, it became necessary to move them, and the Boards of Health in interest agreed that the fumigation of the interior with sulphur, and the washing of the outside with copperas water was sufficient to permit of their being used in ordinary traffic. A few days since, cars being badly needed on the northern lines of the L. and N. system, Dr. Cochran was applied to for his opinion as to the discontinuance of washing the outside with copperas water—of cars intended to be moved at once out of the State. He gave a curt refusal. Following the precedent established from the beginning, the railroad applied to the Boards of Health of Montgomery and Escambia counties, and received permission to handle the cars, as suggested. Dr. Cochran being so informed, forgetting his duty, and considering only his professional dignity as being wounded, quitted his post without even notifying the railroad authorities, and never having explained the necessity for the process of washing with copperas water only one part of a car, and leaving the remainder of it untouched.

The citizens of Escambia county making this protest, becoming justly alarmed by reason of a log train from Pensacola being run out to Benton, were heard of by Dr. Foard, Health Officer of Escambia county, who properly rescinded his permission previously given to pass partially disinfected cars through Escambia county.

This action was respected at once by the railroad officers, and the former status restored. Dr. Cochran returned to the Junction, by the advice of the President of the State Board of Health, and attempted to punish one road for the unfortunate and regretted action of another, by declining to inspect cars disinfected under previous regulations. Finally, the system as mapped out originally by the local authorities and railroad officers has been effectively, harmoniously and cheaply carried out with safety to all, and the least possible inconvenience to any. The railroad has tendered, and in some instances given the use of their section houses, cars, and other facilities for the purpose of making good the quarantine ; has watched over its own and

the Board of Health's employes, promptly reporting all neglect by the latter, and punishing all violations by the former.

Judging from his inflammatory cards, Dr. Cochran would seem to consider it unnecessary to avail himself of the aid of the local authorities, and in complaining of the withdrawal of the support of the railroad company, seems to assume that he combines in his proper person all the legal bodies with whom it had been treating, and with whom it considered it its duty to treat, regarding the Doctor as an expert and a common adviser of all concerned, but not as a repository of the legal powers vested in the various Boards of Health and other officers. The slight and only friction occurring in the whole period of quarantine, seems to have arisen from his misapprehension on this particular, and was promptly adjusted upon the request of the proper authority."

THE ORIGIN AND PROGRESS OF THE EPIDEMIC.

It is known to those who have read my Theory and Practice of quarantine, that I have expressed the opinion that even after the introduction of a few cases of yellow fever into one of our Southern cities, it is still possible by properly directed measures of local quarantine, that is to say, by isolation, disinfection, and segregation, either to crush it out altogether, or at the worst, to very greatly restrict its dissemination.

Accordingly, in my telegraphic reply to the telegraphic announcement of the fever by the Pensacola Board of Health, I urged upon that body the importance of making an earnest effort to confine the fever to the localities already infected; I followed up my telegram with a written communication in which I begged that the opportunity presented by the appearance of yellow fever in Pensacola should be utilized to the uttermost in the interests of sanitary science in two ways; (1) By putting my theory of the domestic management of epidemics to a direct experimental test under the most rigorous conditions; and (2) By commencing at once, while such an enterprise was still possible, and to prepare a full history of the epidemic with a detail of all the facts of every case, and especially to trace in the history of every case the ways and means of infection. By way of inducement I pointed out that no such work had ever been done, that of all the thousands of epidemics that had occurred during the last three hundred years not a single one had had its history adequately written. The Secretary of the Board thanked me for my suggestions, and promised that they should be carried out to the letter.

These promises were not kept. Indeed, so far as I was ever able to judge, no effort was made to keep them. Finding that little was to be expected in this direction from the health authorities of Pensacola, I appealed to several personal friends to engage in the collection of the facts of the epidemic, but here again I was doomed to disappointment. As a basis upon which to conduct the investigation, I addressed to Maj. W. T. Walthall the brief outlines of the plan of procedure which seemed to me to promise the best results. This paper was published in the Pensacola Commercial, and is here subjoined, together with the remarks of the editor in regard to it:

ORIGIN OF THE EPIDEMIC.

Dr. Jerome Cochran, Health Officer of Alabama, is exceedingly anxious to obtain a minute, exhaustive, and accurate account of the facts connected with the origin of the pestilence now afflicting Pensacola. He has addressed a letter to Major Walthall, asking him to make the investigation; but as Major W.'s other engagements do not permit him at present to give the necessary attention to the matter, he has handed us Dr. Cochran's letter, for the publication of that part of it sketching the plan of investigation which the Doctor suggests, in accordance with the alternative request of the writer. Dr. Cochran hopes that some gentleman having the requisite leisure and other facilities will be induced to give his attention to the subject.

The following extracts will show what is desired by Dr. C.:

PENSACOLA JUNCTION, September 30, 1882.

Major W. T. Walthall, Pensacola, Florida:

DEAR SIR:

* * * * * * *

The salient points of the case may be briefly stated:

(1) I take it for granted that the fever came from the sea, although no connection has been traced between any of the recognized cases and the infected ships in the bay—to the Saleta, or to the Accame.

(2) It would be necessary to investigate the quarantine regulations, and the manner in which they have been enforced by the quarantine officials. It is charged that the cleansing and disinfecting of vessels in quarantine was very carelessly and inefficiently done; that the intercourse of crews of vessels not known to be infected with vessels that were known to be infected at the ballast crib was very slightly restricted; and that the officers of all the vessels in quarantine flocked together every morning to the supply house to get their mails and supplies. Every one of these points ought to be minutely investigated.

(3) The history of every infected vessel that has been in the bay of Pensacola this summer should be carefully studied in all its possible antecedents and consequences—the history of the Saleta, the Accame, the Iris, the Rosa B——, the —— McNeil, the Duc Amici Luigi, and all the rest.,

(4) The Saleta and the Accame should be specially studied. I am sure that they got their infection either at the quarantine station or in the city itself; and I am very much of the opinion that a thorough study of the cases of these two vessels will solve the problem of the introduction of the fever. One notable fact in connection with all of these infected vessels, is the fact that the officers were the first to have the fever—the officers—that is to say, the men whose freedom of movement was least restricted, and who were most frequently at the supply house, and most frequently ashore.

(4) The first case on shore did not occur along the shore of the Bay, near the wharves, as might have been expected, on the hypothesis that the fever was brought from the shipping, and almost a whole month passed

away after the presence of the fever in the city was recognized before any stevedore, or any person accustomed to work on the ships, or any of the women in the lewd houses, frequented by sailors, were attacked by it. It would seem to follow that the fever was brought in, not by the common sailors, but by the officers. Still, no case has been traced to any connection with the Saleta; and no subsequent case has occurred at Mrs. O'Neal's, where the captain of the Accame died, or anywhere in the neighborhood of Mrs. O'Neal.

(5) There can be no doubt that the fever had really found a footing in the city many days before its dread presence became known, either to the people or to the health authorities; and the most persevering efforts should be made to discover the really "first cases." To this end the antecedents of the first cases that were recognized should be thoroughly traced out; and in this connection an investigation should be made of every case of fever that occurred anywhere in the neighborhood of the district that first became infected for two or three weeks or a month before the annunciation of the fever on the 28th of August. In this list come the cases in the Rosario family, near the jail, and several other cases that occurred in that immediate neighborhood, whose names I cannot now recall. The probabilities all point to this locality as the *fons et origo* of the epidemic, and here the research should be made in a spirit that refuses to be baffled. Spend days and weeks here, if necessary. Interrogate every human creature in the neighborhood, and note every smallest occurrence. Somewhere about here the key of the problem is to be found.

(6) Having found the first cases and given them a local habitation and a name, it will be comparatively easy to follow up the subsequent progress in space and time of the pestilence; and it ought to be followed step by step. If cases are found in which the principle that non-intercourse gives immunity seems to be invalidated, such cases should be exhaustively put to the question.

I also add here an extract from a subsequent communication to the same paper, which gives some of the reasons why I was so anxious to have this investigation made:

"My official position in Alabama is known to your readers, and the duties of that position made it necessary for me to take part in the administration of the quarantine regulations that were devised for the protection of my State. More than any other Sanitarian in the South, I have been opposed to shot-gun quarantines and to those unscientific quarantines based upon the principle of total exclusion of all persons and things coming from an infected place—a sort of quarantine that does not stand in need of the direction of sanitary experts, but contrariwise, requires only the ubiquitous policeman. In opposition to quarantines of this sort, I have advocated quarantines based on the principle that travel and traffic should be interfered with as little as possible—that a wise discrimination should be used to exclude from communities needing protection, all persons and things whose admission would be attended with danger, but to permit, under

proper precautions, the introduction of all persons and things not likely to act as carriers of infection.

In the administration of quarantines of this sort, it becomes necessary to know under what circumstances persons and things become dangerous, and this can be learned in no other way than by the careful study of the facts connected with the origin and progress of epidemics. During the last two hundred years many hundreds of communities have been devastated by epidemics of yellow fever, and one would think that facts enough would have been elicited to settle all possible problems attending the advent and subsequent march of this pestilence in space and time. There can, indeed, be no question that the facts have presented themselves. The trouble is, that for the most part they have escaped observation, and to a still larger extent, have not been placed upon record, so that the priceless lessons they had to teach have been utterly lost to the world. A few of the leading principles concerned in the propagation of yellow fever epidemics and the transportation of the infection from place to place and from person to person, have been ascertained, and can be made available for the mitigation of quarantine and for opposing the progress of epidemics. As far as lay in my power I have applied these principles this season towards the modification of quarantine restrictions against Pensacola. The day I reached the Junction, here an order had been promulgated, that no cars from Pensacola should be admitted into the State of Alabama. I believed that this order was unnecessarily stringent, and secured its modification. I found that several towns in Alabama had prohibited the admission of mails from Pensacola, and that others were preparing to do the same thing; and still further, that there was some trouble of the same sort in Mississippi. I immediately provided the needful facilities for the disinfection of all Pensacola mails at this point, and so, at the cost of a large amount of trouble to myself, succeeded in quieting public apprehension in this regard."

Baffled in these efforts to secure a thorough investigation of the origin and progress of the fever, I finally invoked the assistance of the National Board of Health, with the result that on the 17th of October, Dr. Wm. Martin, of the United States Navy, then in the service of the National Board, was ordered to Pensacola, which place he reached on the 19th, with instructions to make as complete an investigation as possible. How Dr. Martin was received by the Pensacola authorities, how his labors were interrupted by a short attack of the prevailing sickness, how Dr. Hargis was joined with him in the investigation—all these things would make up a story of more than usual interest; but it is too long to be told here. The result of the investigation was a very voluminous report, with thirty or forty appendixes, which has not yet been published, the National Board of Health having no funds available for that purpose.

Although I have not seen this report, I have some reasons for believing that, in spite of many imperfections, it is both more accurate and more complete than most of the histories of yellow fever epidemics hitherto published. I am now endeavoring to have an abstract of it prepared for publi-

cation in some medical journal. What success I am to have in this effort remains to be seen.

In the meantime, so far as I have been able to learn it, the theory of the report, and the generally accepted theory of the fever in Pensacola, is as follows;

(1) That the infection was brought to Pensacola by the Saleta, in the earth ballast which she had taken on at Mantanzas. One sailor was sick while she was discharging ballast at the quarantine. He was not much sick, and at the time there was no suspicion that he had yellow fever. I do not know the date of the discharge of ballast, nor the date of the sickness of this sailor. Six tons of ballast—there is some conflict of statements as to the amount, but my information is positive that it was six tons—were left in the vessel for "stiffening." This was shifted from amidships to underneath the after-cabin; and a few days after this, the mate, who slept in the after-cabin, was taken sick—that is to say, on the 5th or 6th of August. Subsequently, about the 9th, two other cases of sickness occurred on this vessel; and on the 10th the mate died, and the vessel put to sea. The two sick persons died before she reached Havana, and no other cases occurred on board of her.

(2) That the captain of the Accame, Captain Bartollo, contracted the fever by association with the Saleta and her officers, particularly with the mate. He was taken the same day with the mate of the Saleta, and died two days later, namely, on the 12th of August. The Accame was never moved to any of the wharves in Pensacola, and it was several weeks before another case developed on this vessel, the next case being that of the mate. No developments occurred at the dance houses, or at any of the other places frequented by these men.

(3) That the first cases on shore occurred at the Rosario house, situate on the north side of Zarragossa street, between Jefferson and Commandantia streets, and about two squares from the bay. A sufficient history of the Rosario cases has already been given. Miss D. Rosario, the first of the cases, and the only one that proved fatal, sickened just about the same time as the mate of the Saleta and the captain of the Accame, that is, about the 5th or 6th of August, and died on the 13th. It is said that this young woman had done some washing for Captain Bartollo of some linen coats and pants, and perhaps two or three woollen undershirts. It is said, also, that the house was often visited by Frank Dool, a sailor runner who was often on the Saleta, but who did not contract the fever himself. In one of these ways the infection is supposed to have been carried to this house. In this immediate neighborhood lived Cobb, and Shirmer, and Sinkler, all amongst the early cases. One square north, on Government street, was the express office and Graham's, a very prominent locality in the early history of the disease, which for several weeks, seemed almost to confine its ravages to the four squares between Government and Romana and between Palafox and Alcuniz. Dr. Martin details forty-seven (47) cases as occurring before the first day of September; how many before the 28th of August, I have not learned, but the number must have been considerable.

THE STATISTICS OF THE EPIDEMIC.

I have not been able to obtain a copy of the Official Report of the Pensacola Board of Health. What is here stated is derived from an editorial in one of the Pensacola newspapers, which professes to give the official numbers. From this, it appears that the whole number of cases was 2,350; and the whole number of deaths 197; which gives a total per centage of deaths to cases of 8.38—a remarkably small mortality.

Dr. Hargis accounts for this small mortality by stating that a large majority of the cases were amongst the colored people, where he asserts the mortality to have been less than one-half of one per centum. He estimates the mortality amongst the whites at about the usual rate for the white residents of the Gulf cities.

The same paper makes the following curious comparison, which certainly is very suggestive:

The total number of deaths in 1881, during the same period as that which in 1882 was covered by the epidemic, was 123. Subtract this from 197, and 74 remains as the extent of the increased mortality due to yellow fever.

It is not to be forgotten, however, that this increased number of deaths, which at first glance seems quite insignificant, assumes more importance when considered in connection with the largely diminished population.

THE OUTBREAK OF FEVER IN BALDWIN COUNTY.

During the month of September, several fatal cases of fever, with several deaths in rapid succession, occurred in Baldwin county, and very naturally occasioned a good deal of excitement.

Three cases presumably of the same character, since they seemed to have had the same origin, were treated in Mobile county—two in the city of Mobile and one in Citronelle.

I herewith submit an account of the Baldwin county cases, prepared by Dr. J. Grey Thomas for the Mobile Medical Society; together with an account of the other three cases, extracted from letters received at the time from Dr. E. H. Fournier, the Health Officer of Mobile.

To my mind, the details of these cases are extremely suggestive of yellow fever; and I think there would be no doubt left in the mind of any competent judge, if the question of the importation of the infection could be cleared up. Continuous fevers of three or four days duration, black vomit, albuminous urine, and a phenomenal death rate, make up altogether a set of facts not easily to be explained on any other theory.

It is also to be noted that isolation and disinfection were practiced in the Mobile cases, although the diagnosis was that they did not have yellow fever.

REPORT OF SOME OF THE CASES OF FEVER AT AND NEAR HOWARD'S WHARF, BALDWIN COUNTY, ALABAMA, SEPTEMBER, 1882. REPORTED TO THE MOBILE MEDICAL SOCIETY AS YELLOW FEVER BY J. GREY THOMAS, M. D.

Colonel J. C. Rupert, an imbecile, was in the habit of wandering about the woods. September 8th he visited the house of a friend suffering with

high fever, stating that he had been in camp for several days with strangers said to be from Pensacola, an infected city. He was sent to his (Rupert's) home, and died without treatment, September 14th.

Dr. Warren Williams, Rupert's brother-in-law, was visiting Rupert at the time of his death, and assisted in preparing his body for the grave. Four or five days afterwards, he was taken sick with fever, which was continuous, and lasted about five days, resulting in death. He was very yellow when I saw him, which was about two hours before his death. He was comatose when I saw him. He had no regular treatment.

Mr. E. S. Taylor also assisted in preparing the body of Colonel Rupert for burial, and was taken sick with a chill, followed by high fever, which lasted for several days. He received prompt medical aid in Mobile, and recovered. He was very yellow during his sickness.

Mr. D. A. Moniac prepared the body of Dr. Williams for burial, and was taken sick about a week after the death of Williams. He had a high continuous fever for five days before his death. I saw him on the day of his death, in a state of delirium, too late to render any assistance. He had no medical treatment.

Mrs. Marone Dolive visited Mrs. Rupert (at the house where Rupert and Williams died) September 24th, and was taken with fever September 29th, which was continuous for five or six days. She had no regular treatment. Recovered.

Miss Agnes Dolive visited Mrs. Marone Dolive October 8th, was taken with fever October 13th, and died October 18th, throwing up black vomit, and was very yellow. She received no regular treatment.

Mr. Alexander Dolive, father of Miss Agnes Dolive, visited his sick daughter at the house of Mr. Marone Dolive, was taken sick with fever October 23d, and died October 28th. He had continuous fever. Received but little medical treatment.

Mrs. Nancy Dolive, wife of Mr. Alexander Dolive, had high fever for several days after the death of her husband, but recovered. She had no medical treatment.

Miss Bradley lived near Rupert's house, but did not visit it. Moniac was sick at the hotel, where Miss Bradley lived. Her brother visited Moniac often, and was also with Rupert and Williams, and lived in the same house with his sister. She was taken sick about eight or ten days after the death of Moniac; had a chill, followed by high fever and great nausea, and was sick about five days. I saw her the day previous to her death. She had been treated by a homeopathic physician. She was in a state of collapse when I saw her. Before her death, she threw up black vomit, and was very yellow.

Mr. Connell (Colonel Rupert's son-in-law), who lived at West Point, Mississippi, visited Mrs. Rupert, where her husband died, remained two or three days, returned to West Point and died of fever, which it was believed he contracted at Howard's.

Since this report was made, a letter has been received from the wife of Mr. Connell, giving some of the particulars of his death. She states that

Mr. Connell was taken sick the sixth day after reaching home; had a dumb chill, followed by exceedingly high fever. Her family physician was immediately summoned, and pronounced it "the most stubborn case of fever he had ever dealt with." He died on the 4th day of his sickness, and was very yellow before his death.

Where the fever came from may ever remain a mystery, but I hope future developments may give us some light in regard to it.

THE MOBILE CASES AS RELATED BY DR. E. H. FOURNIER.

From Letter of October 7th. There has been some excitement on account of a case of fever which Dr. Gaines has had under his charge. It seems that a Mr. Taylor, living in Mobile, but engaged in the turpentine business in Baldwin county, had seen or been with Mr. Rupert during his last illness. About the time of Mr. Moniac's death, Mr. Taylor was taken sick, probably in Baldwin, at Tensas or Stockton, but took to his bed in Mobile—his room is over Savage's drug store. This was on last Friday, 29th of September. The fever continued about seventy-two hours. There was high temperature in the beginning—say 104 degrees, and pulse of 96—pulse and temperature pursuing a parallelism. The fever went off on the third day. The patient had treatment for remittent fever, and at the subsidence of the fever was given twenty grains of quinine. Some depression and nausea followed, and albumen at this juncture was found in the urine.

The patient is now recovering, and his wife, who came from Baldwin after her husband, sickened the day following her arrival of an intermittent which ran into a remittent type of fever. She is also recovering.

From Letter of October 14th. (This patient was a neice, I believe, of Mr. or of Mrs. Taylor, and was sent to Citronelle to keep her away from the two cases just described.) The case of fever at Citronelle is malarial, aggravated by a dose of Tutt's pills, which the patient took on the first day of the fever, and which was producing still on the third day greenish watery discharges. No quinine had been given. The fever ranged very high for two days, 104 morning and evening; pulse and temperature parallel; urine free; had not had injected countenance; no nausea; vomited on the first day—bile, it is supposed.

When I saw her, temperature 101 3-5; pulse 96; *morale* bad, since the general impression that her case was one of yellow fever had not been concealed from her. The temperature rose that day—the 11th—to 103 in the afternoon. Quinine was given that night; and the morning after—the 12th—the temperature was 100 3-5, pulse 98—the irritation of the bowels continuing. Report this morning—temperature 100 1-2; pulse 100; secretions not properly established.

(Dr. Fournier's letters aid me no further in the history of this case. I am able to state, however, that she recovered, and that she was badly jaundiced.)

PART V.—SUPPLEMENTARY PAPERS.

REPORT ON MEDICAL EXAMINATIONS AND FEES FOR THE SAME IN THE MATTER OF LIFE INSURANCE. MONTGOMERY MEDICAL SOCIETY, JUNE 30TH, 1882.

We, members of your committee, to which was referred the resolution of Dr. J. H. Blue, introduced at our regular meeting on June 26th, which resolution was as follows:

"*Resolved*, That charges for medical examinations for life insurance companies be left to the discretion of the examiner"—beg leave to report:

The right and propriety of establishing minimum rates of charges by the physicians of a particular place for all professional services rendered by them is universally recognized. There may be, and doubtless there are, individuals who except to this rule, as there are individuals who except to every other good rule, but we know of no community in which the physicians, as a body, do not subscribe to it. In accordance with this well established rule, this society has fixed five dollars as the proper fee for an examination and certificate with regard to the soundness of an applicant for insurance.

Certain insurance companies have, however, said in effect to the profession that they do not concede this right; that they claim the right to dictate to the profession here and elsewhere, what shall be the remuneration of physicians when they render professional services to them or to those proposing to insure in their companies. Practically, they say we will not recognize your fee of five dollars for examinations, but if you render professional services to our companies you must accept for your examinations what we see fit to prescribe, and not what you may consider reasonable and just compensation for your services.

Certain physicians in this city, outside of our organization, influenced by those considerations which always lead to underbidding, have seen fit to disregard the rule which has been established by the society, and have acknowledged the dictum of the insurance associations as the measure of the value of their services.

We deny the right of any insurance, mutual aid, or any other organization needing our services to dictate to us what shall be our fee for any service whatever; and we point to the resolution under consideration as proposing a weak concession to others of that which has at all times been considered a prerogative of the profession itself. If we concede this right to one organization, we yield the principle and will soon become the slaves of other organizations which may find it to their interest to depreciate our services and dictate to us what fees they will allow us for any professional services whatever which may be rendered to them. Suppose that the Grangers, or any large and influential organization banded together for mutual aid and protection, should establish one dollar as their fee for a visit and prescrip-

tion, and fifty cents as their fee for mileage, and propose that as the rule to govern the physicians of Alabama for the future. Suppose, too, that the organization proposing these fees in Montgomery should find two or three doctors, as they certainly could do, willing to undertake their practice on these terms, what would you say and what would you do? Would you, in the spirit of the resolution before us, propose to make fees for visits, prescriptions and mileage discretionary, in order that members of this society might enter into a demoralizing scramble with these cheap doctors for their prospective ill-merited gains? That these organizations should try to rule us and dictate to us what shall be our fees is not at all surprising; nor is it surprising that one, two or three doctors should be found in Montgomery who are willing to bend the knee "that thrift may follow fawning;" but it is astonishing beyond the power of expression to us that any considerable number of the members of this society should consent to acknowledge the authority and dictation of these companies, and be willing to enter into a demoralizing scramble with these cheap doctors for their prospective ill-merited gains. We say demoralizing, for it is demoralizing for any man or set of men to consent to yield a principle and resort to underbidding for a paltry temporary gain in dollars and cents. Let us not permit insurance, mutual aid, grangers, or any other organization, or those doctors who are either intentionally or unwillingly co-operating with them, to dictate to us or influence us with regard to what shall be our fee for any service whatever; but let us manage these matters in our own old time-honored way, subject only to such restrictions as reason and charity impose upon us.

Is five dollars a reasonable fee for a conscientious examination for insurance by a competent physician? The members of the American Medical Association, representing all parts of this vast country, from places where high fees obtain and from places where low fees obtain, at their meeting in Washington in 1870, by recommending it, without a dissenting vote, declare that in their opinion five dollars is the minimum fee—we repeat it, the minimum fee—that can be considered just compensation for an examination for life insurance. Were these medical gentlemen all wrong, and are the officers and agents of certain co-operative or mutual aid insurance companies who have presumed to fix fees for medical examinations, and a few doctors here and elsewhere, who have seen fit to accept their dictation, all right on this subject? A further evidence that five dollars is a reasonable and just fee, is found in the fact that all insurance companies which give reliable insurance cheerfully pay five dollars for their medical examinations, and some of them pay ten dollars where the risk is for ten thousand dollars. Do they pay more than the examination is worth? Can we suppose that the best of them as regards economy, care and wisdom in financiering, would volunteer to pay ten dollars when extra care is required, if five dollars were more than a just compensation? Certainly not. Cheaply indeed must he hold the time, skill and attainments of a doctor of medicine who feels that five dollars is an unreasonably high fee for an examination for insurance. There is not a member of this society who conscientionsly holds

any such opinion. We say conscientiously, for there is not one who will not gladly, and without a twinge of conscience, charge and collect this fee from any company that he has reason to believe will pay it.

If, then, this fee of five dollars has been fixed in accordance with a time-honored custom, and the acknowledged prerogative of the profession to fix its own fees, and if it is a reasonable compensation for the service—both of which propositions we think have been established—why should we change our legislation on this subject and leave the charge for such service discretionary, especially since the whole history of the agitation of this subject shows, as before remarked, without the shadow of a doubt, that the object of the proposed change is to allow members of this society to compete by low charges for this kind of practice with certain medical men who disregard our rule. It is because some doctors are underbidding us that we are called upon to change this rule. It is a movement of policy; and the policy is short-sighted and demoralizing, involving decency, professional pride, the loftiest ideas of the worth and dignity of our humane and Godlike profession. Can we submit to this without dishonor? But we are asked to put these various orders on a different footing from the proprietary insurance company on the ground of charity. Think of orders of knighthood, with magnificent halls, costly regalias, expensive fees for initiation into their different degrees—think of such expensive orders of knighthood—orders of knighthood, mark you, asking charity from doctors! The thing is too ridiculous for serious consideration; yet we will undertake to consider it seriously. Life insurance is the poorest possible investment for the rich man's money, and one of the best possible investments for the money of the man of limited means. In it the rich man sinks not only his interest, but a part of his capital for a protection which he does not need. The security of his capital to his family is in mortgages and bonds. The man of fair income, but of little means, however, pays a part of his salary or income as a premium for certain protection to his family in the event of the premature destruction of his capital, which is his life. We have had pretty large experience in examining for insurance companies, and our experience teaches us that poor men, if they are wise, go into the very best companies. A large proportion of those insured in such companies, represented in this city, are men of very limited means. The incomes and capital of a large majority of the Sir Knights to whom we are exhorted to extend charity are quite equal to the incomes and capital of most of those who insure in the best companies of the country. The truth is, that men who are able to insure their lives in either of these kinds of companies do not, since it has to be paid but once, find it a hardship to pay for a medical examination; and since this is the case, charity does not demand that the examination should be made for less than a minimum reasonable compensation, which the medical profession has fixed at five dollars.

BENEVOLENT ASSOCIATIONS.

But these mutual aids and orders of Knighthood are benevolent associations. Courts have decreed that they *are not life insurance companies.* Most

of those who are insured in them will, we fear, if the present cheap and lax examinations continue, find before many years that the courts are right; but where does the benevolence come in? The benevolence in all kinds of insurance organizations with which we are familiar, is exactly the same and begins and ends with the good will and love which exist and play betwixt a man and his family for whose benefit his life is insured. Any pretence of further benevolence than this in any of them is the merest bosh, and any sensible man knows it. They are conceived, organized and conducted on business considerations, and the benefactions which follow are, and should be, the results of strictly business transactions.

That some good men here and elsewhere have accepted these low fees we do not pretend to deny; but instead of quoting them as authority for such questionable practices, we prefer to believe that they have never taken the trouble to analyze the situation, and consequently have not appreciated the unwittingly offensive attitude which these mutual aid associations and various orders of knighthood have assumed toward our profession. And we feel assured that these misguided medical gentlemen will elsewhere. as they have done here, when the matter is fairly brought to their attention, utterly and altogether repudiate the unwarrantable assumption of these various associations in cheapening honest professional work.

We think that we have established in the foregoing argument the following propositions:

1st. That the right and propriety of establishing fees for professional work is inherent in the profession, and cannot be left to men outside of our ranks without a lowering of our professional self-respect, and the respect which we have a right to demand from the community.

2d. That these various mutual aid associations and orders of knighthood practically deny to us this right, and say to the medical profession, you may make these examinations for three, two or one dollar, as the case may be, and if you will not do it for our fees we will find somebody cheap enough to do it for us.

3d. That the effect of lowering our standard would be to open the way for a demoralizing scramble for these low fees, demoralizing alike in our own eyes and the eyes of the world.

4th. That five dollars is only a proper minimum fee for honest, conscientious examinations.

5th. that the plea of charity is without foundation.

6th. That the plea of benevolence is equally without foundation.

But so important do we deem this subject to the dignity and tone of the Medical and Surgical Society of Montgomery, that we must beg your patience while we recapitulate in this report the status of the question towards us.

The Code of Ethics of the American Medical Association, under the head "of the duties of the profession to the public and of the public to the profession," Art. 1, sec. 3, reads: "Poverty, professional brotherhood and certain of the public duties referred to in the first section of this article, should always be recognized as presenting valid claims for gratuitous services (a

large and wise draught upon our warm-hearted charity), but neither institutions endowed by the public or by rich individuals, societies for mutual aid, for the insurance of lives or for analogous purposes, nor any profession or occupation, can be admitted to such privileges," (a pointed protest against all false claims for charity, and upholding the rights and independence of the profession).

In this latter clause, societies for mutual aid, for insurance of lives or for analogous purposes, are all grouped under one genus.

Later, in 1870, the American Medical Association passed the following resolution: "Resolved, That this Association recommend that the lowest amount charged for life insurance examinations shall be five dollars," and precedes the resolution with this as one of the reasons, "that the responsibility assumed by the medical examiner does not seem to have been heretofore properly appreciated."

In accordance with the spirit of these utterances, the Medical and Surgical Society of Montgomery, years ago, fixed the fee for all such examinations at five dollars, and again, a year ago, after careful examination of the whole subject, reiterated its former law and explicitly included in its scope all mutual aid associations.

As a result of this action a large proportion of the examinations of this latter class has passed into the hands of one or two men who do not deem themselves bound by our law, and who have done them for any fee fixed by these organizations.

To counteract this the resolution submitted to us proposes to enable the regular members of the profession to do the same work at any price each member may see fit to charge, or in other words, to open the door for each member of this society to enter into competition in the market for these examinations, by doing cheap work. It is evident, from the expressions of those favoring this resolution, as well as the attending circumstances, that except for the fact of these examinations passing into outside hands through cheap fees, no movement would have been made to cheapen such work within our Society.

Medicine is a liberal profession, and the spirit of trade and the ways of trade have always been discouraged as derogatory to its dignity and tone, while a generous emulation in professional qualifications, skill and honest work have always been upheld as the touchstones of success.

Having taken this stand for just compensation for the responsibility and skill necessary in these examinations, we have put ourselves fully abreast of the ideal of professional honor in this respect; nay, we are with the vanguard who bear the standard to the front, and we believe that agitation of the subject and education in the principles involved, will carry the whole country with us in our endeavors to exact from the public, in the language of the code of ethics, "a just appreciation of medical qualification."

Nay, more, we believe that in a short time, by judicious publications, we can convince the officers of these institutions who now propose to dictate terms to the medical profession, and the people who are now captivated with the idea of cheap examination fees, that their true pecuniary interest lies

in the direction of honest compensation for honest examinations. When this is accomplished it will be an honor to the men selected to do the work, for they will naturally seek the best skill and pay for the best work.

But be that as it may, having already advanced our standards and joined the issue, to take a step backwards and abandon our position for even large pecuniary considerations, would be bad enough, but to do this for the miserable pittances which may flow into our purses from these sources, is trailing the proud escutcheon of the Medical and Surgical Society of Montgomery, which now shines so brightly and proudly in the eyes of the whole country, in the dust of humiliation, and instead of the wise, sad face of Galen, with the script, *Premia Sequuntur Digna*, as our seal, we had better substitute a hirsuit face, supping a mess of pottage, with this as legend, in plain English, that he who runs may read, "This is life's highest aim and end."

S. D. Seelye, Chairman.
J. B. Gaston.

SCHEDULE FOR THE EXAMINATION OF APPLICANTS FOR LICENSE TO PRACTICE BY THE ILLINOIS STATE BOARD.

The Illinois State Board of Health is also charged with the duty of examining undergraduates who desire to practice medicine in that State. At their session in April of this year they made use of the following schedule of questions; and eighty *per centum* of correct answers was necessary to a successful result. This schedule is printed here in order that the Examining Boards of this State may see what sort of medical examinations have been elsewhere considered appropriate. We may remark, however, that the number of questions seems to us greater than there is any need of.

QUESTIONS BY ILLINOIS STATE BOARD.

EXAMINATION IN ANATOMY.

1st. Give the minute anatomy of bone.
2d. Describe the astragalus, and give its articulations.
3d. With what bones does the ulna articulate?
4th. Describe the ligaments of the elbow joint.
5th. Describe the biceps of the arm, giving its relation to the nerve by which it is supplied.
6th. Name the muscles involved in fracture of the radius near its center, and describe their action.
7th. Describe the vessels of the liver.
8th. Name the arteries forming the circle of Willis.
9th. Describe the superficial and deep palmar arches.
10th. Describe the Eustachian tube.
11th. Describe the kidneys.
12th. Give the anatomy of the inferior carotid triangle.

13th. Give the distribution of the fifth cranial nerve.
14th. Give the relations of the brachial artery, vein and nerve.
15th. Name the structures wounded by a ball which entered the right side about four inches from the median line of the spine, and on a level with the centre of the first lumbar vertebra, and traversed the body, making its exit on a level with the eighth rib and ten inches to the left of the median line of the spine.

EXAMINATION IN PHYSIOLOGY.

1st. What is physiology?
2d. Is digestion a simple or a complex function?
3d. What are the natural solvents for the food?
4th. Is the bile a secretion or an excretion?
5th. Name the chief constituents of the blood.
6th. What is the source of its white corpuscles?
7th. What is the relative frequency of the heart-beat and the respiratory act?
8th. Does urea exist in the blood in health, or is it manufactured in the kidney?
9th. If the renal function is temporarily suspended what surfaces may eliminate the urinary salts?
10th. What is the function of the cerebellum?
11th. Give the physiology of menstruation?
12th. How is the ovum nourished prior to the formation of the placenta?
13th. Describe the function of the lymphatics.
14th. What are the sources of heat in the animal body?
15th. What is the average normal human temperature, and what is the range in health?

EXAMINATION IN CHEMISTRY.

1st. What is an elementary body?
2d. Name ten elementary bodies, and give their chemical symbols.
3d. Define specific gravity.
4th. What is the use of the hydrometer?
5th. At what temperature Fahrenheit is water most dense?
6th. What are the properties of chlorine?
7th. What elements chiefly constitute common air, and in what manner are they associated, chemically or mechanically?
8th. What medicinal substance is represented by the chemical symbols KI?
9th. What metal forms the base of common clay?
10th. What element composes the principal bulk of plumbago? and name some other substances of which it is chief constituent?
11th. What is produced by the addition in solution of six parts acid tartaric to eight parts sodic bicarbonate?

12th. In what manner does the leavening or lightening of dough by yeast differ from the same accomplished by baking powders, and which process is most destructive to the virtues of the flour?

13th. What effect will usually be produced by the administration of a tablespoonful of Na Cl?

14th. What are the principal chemical elements found in milk?

15th. What is an acid; a salt; a base; an alkaloid; an alkali; an alcohol; a compound ether?

EXAMINATION IN GENERAL PATHOLOGY.

1st. What is the difference between fever and inflammation?

2d. Why do we distinguish predisposing from exciting causes of disease?

3d. Describe and define a cachexia.

4th. What is meant by the "latent period" of a disease?

5th. What is chloro-anemia?

6th. Name the most prominent of our epidemic diseases.

7th. Give the chief and common characteristics of malignant disease.

8th. Explain the clinical significance of a hyper-thermal temperature.

9th. What is the import of glycosura in malarial fevers?

10th. With what particular diathesis are cardiac lesions most frequently associated?

EXAMINATION IN THE PRACTICE OF MEDICINE.

1st. Give the pathology, symptoms and treatment of empyema.

2d. What are the diagnostic symptoms of intestinal invagination?

3d. In what various ways may an attack of pneumonia terminate?

4th. Describe typical cases of measles, chicken-pox, small-pox, so as to indicate their differential diagnoses.

5th. Give the pathology, symptoms and treatment of typhoid fever.

6th. What precautions are necessary during the treatment of acute rheumatism with reference to complications or sequelæ?

7th. What are the symptoms and usual results of cerebral hemorrhage?

8th. Give the symptoms and treatment of croup.

9th. How would the scrofulous diathesis modify your treatment in an acute inflammatory attack?

10th. What is the essential pathological condition in *tabes mesenterica?* Indicate the general treatment.

11th. What are the symptoms of acute gastritis?

12th. What are the predisposing causes of Bright's disease?

13th. Give the symptoms and treatment of sunstroke.

14th. Give the symptoms and treatment of bronchitis.

15th. What is understood by the self-limitation of diseases?

EXAMINATION IN SURGERY.

1st. Describe the mode of pus formation.

2d. What are the uses of pus?

3d. What is the distinction between septicemia and pyemia?
4th. What are the complications of abscesses?
5th. Give the symptoms of gangrene.
6th. Define a burn of the second degree, and indicate its treatment.
7th. Give the treatment of lacerated wounds.
8th. Give the anatomy of epithelioma.
9th. Describe Teele's method of amputating, and name the advantages and disadvantages it presents.
10th. Give the relative advantages of the circular and the flap modes of amputating.
11th. What are the principal causes of death after amputation?
12th. Describe venesection upon the median basilic vein.
13th. Give the differential diagnosis of phimosis caused by gonorrhea from that caused by subpreputial chancroid.
14th. Describe the ligation of the radial artery in the forearm.
15th. Give the diagnosis of strangulated hernia.
16th. Give the differential diagnosis of fracture of the neck of the femur and of the dislocation of that bone.

EXAMINATION IN OBSTETRICS.

1st. What should be done in case of hemorrhage or flowing after birth of the child?
2d. What are the functions of the placenta?
3d. What dangers attend the mother in twin labors?
4th. What dangers to the mother and what to the child in breech presentations?
5th. Under what circumstances is it proper to administer ergot during parturition?
6th. What treatment is necessary in presentation of the shoulders?
7th. Give the signs of pregnancy in the order in which they occur, and state what is the first *positive* sign.
8th. What should be done in case of prolapse of the cord?
9th. What are the principal fontanelles and what is their shape?
10th. How can you determine a hand from a foot presenting at or near the superior strait?
11th. Give pathology and prognosis in cyanosis.
12th. To what height in the abdomen does the uterus rise during the fifth month of pregnancy?
13th. Why does it usually descend during the last two weeks of pregnancy?
14th. Name all the female organs of generation.
15th. In what manner is septicemia made likely to follow parturition, and in what was should it be guarded against?

EXAMINATION IN GYNECOLOGY.

1st. What is the depth of the normal unimpregnated uterus?
2d. What is the most frequent lesion in uterine leucorrhea?

3d. What form of nervous derangement is most likely to depend upon ovarian disease?

4th. What three diseases are apt to cause anchorage, or fixity of the womb?

5th. What is the source of danger from pelvic hematocœle?

6th. What conditions of the rectum predispose to pelvic disorders in woman?

7th. What are the causes and symtoms of laceration of the uterine cervix?

8th. What is the mode of operating for stone in the bladder of woman?

9th. What are the sources of poisoning in puerperal septicemia?

10th. What do we mean by sub-involution of the uterus?

EXAMINATION IN MATERIA MEDICA AND THERAPEUTICS.

1st. Define (a) Materia Medica; (b) Therapeutics.

2d. Describe, briefly, the various methods in which medicines may be introduced into the system.

3d. Define topical remedies, and name some of the more important ones.

4th. Name some of the evacuants, and state how they act.

5th. What are the principal medicinal agents indigenous to Illinois?

6th. Write prescriptions embracing the following articles, and state the indications for each: R. No. 1:—Sulphate of quinine and sulphate of iron. R. No. 2:—Fluid extract of ergot and tincture of opium. R. No. 3:—Fowler's solution. R. No. 4:—Oil of turpentine. R. No. 5:—Cloride of ammonium.

7th. Describe the therapeutic uses of iodides of potassium and ammonium.

8th. Give the doses of fluid extract of digitalis; of podophylin; of salicylic acid; of iodoform; of proto-iodide of mercury; of fluid extract of gelsemium; of arsenious acid; of sulphate of atropia; of alum; of bromide of potassium.

9th. What are the chief alkaloids of opium; of belladonna; of nux vomica; of aconite; of Calabar bean?

10th. Write three different prescriptions—for diarrhea; for pneumonia; for malarial fever—stating the different stage or character of the disease, or other indications, intended to be met by each prescription.

11th. What is hydrate of chloral; its uses; dangers? To what is it antidotal?

12th. Name and give the doses of the different officinal preparations of opium.

13th. What are the principal anti-pyretics, and their modes of use?

14th. How do they act, and what conditions indicate their employment!

15th. What are anthelmintics? Mention the doses of three or more different ones.

EXAMINATION IN HYGIENE.

1st. What is zymotic disease?

2d. Name the principal preventable diseases, in the order of their greatest prevalence in Illinois.

3d. What is the most common medium of diffusion of the poison of enteric, or typhoid fever; and in what way may the spread of this poison be effectually prevented?

4th. What are the chief sources of water pollution, and what diseases are caused by a polluted water supply?

5th. In a case of scarlet fever, when would it be prudent to permit the convalescent to mingle with others, and what precaution should be first enforced?

6th. During the prevalence of an epidemic of a contagious or infectious disease, what duty does the physician owe to the public and to his *clientele?*

7th. Within what distance of a well is a privy-vault, cesspool, or other subterranean storage of decomposing animal and vegetable matter, dangerous, and why?

8th. What are disinfectants; how are they used, and for what purposes?

9th. Indicate, briefly, the evils which should be guarded against in behalf of the health of school-children?

10th. What are the chief causes of the excessive mortality of infants and children under five years of age, and how may they be largely remedied?

11th. To what is trichiniasis due, and how may it be prevented?

12th. What diseases are caused by a wet undrained soil?

13th. What effect would general sub-soil drainage produce upon temperature, atmospheric humidity and wind movement?

14th. What is the agency of vegetation upon health?

15th. Describe, briefly, the sanitary conditions which should obtain in and about a dwelling-house.

EXAMINATION IN MEDICAL JURISPRUDENCE.

1st. What is understood by medical jurisprudence or forensic medicine?

2d. A body is found upon a railroad track, mangled by the wheels of a train. How could it be determined whether the injuries were produced before or after death?

3d. In a case of suspected infanticide, what proof would be afforded by an examination of the lungs of the infant?

4th. What is the difference between abortion and miscarriage?

5th. Where a person knowingly communicates a contagious disease to another, and death results therefrom, can the law take cognizance of the facts; and if so, how?

SKETCH OF YELLOW FEVER AT WHITING IN 1870 AND 1873.

By Dr. James A. Wilkinson.

While I was at Pensacola Junction I was much interested in what I heard of two epidemics of yellow fever that had occurred there, one in 1870, and one in 1873; and I requested Dr. James A. Wilkinson to collect all the facts he could with regard to them. This he has done; and his account here follows:

To Jerome Cochran, M. D., State Health Officer:

By your suggestion I herewith send a brief history of the epidemics of yellow fever, which occurred at this place during the years 1870 and 1873. I term the epidemics yellow fever, because they are emphatically declared to have been such by the citizens; and from the statements gathered their opinions seem well founded. Until I located here, two years ago, the villagers relied on medical treatment from neighboring towns; and, so far as I can learn, but two or three persons had a physician in attendance. All of the facts are given by non-professional men. In this paper, I trust it is not foreign to the subject to refer to the growing custom of appealing to the charity of the entire country at every outbreak of yellow fever, and contrast it with the self-help which this little community exercised during both visitations. The village, and surrounding country affected, numbered less than 150 people, of whom nearly forty (40) were seriously ill of the epidemic of 1873; yet no appeal was made for help, in any form, that was not paid for by the sufferers, and they mostly laborers.

Whiting is located on the M. & M. R. R., at its junction with the P. & S. R. R. It is 44 miles north of Pensacola, 60 miles east of Mobile. The level ground on which the village is built is about 85 feet above the level of the gulf. Surface soil is sandy, with a stratum of clay, from two to six feet beneath. Water obtained here is soft and palatable; and none of that which I have seen gives any evidence of organic matter in it, except surface water. The land on which the residences are principally located, is nearly level; at the time of the epidemics there were several ponds of foul water covering, perhaps, one-tenth of the cleared ground.

Remittent and intermittent fevers are not very prevalent in the immediate neighborhood. Colitis, generally yielding readily to treatment, is the only disease which has been very common during my experience in the neighborhood.

These cases are substantially reported, as they were related, by the persons from whom I gained the facts. The time which has elapsed since the epidemics has rendered the history quite imperfect, but all of the relators agree upon the main points so far as their statements go. I have not thought it of any value to send you all of the accounts which were obtained, nor the names even of all of the sick.

THE EPIDEMIC OF 1870.

Mrs. A. C. Ivey's (formerly Mrs. Wiser) Statement.

The first case that occurred in 1870, was my husband's, Thos. Z. Wiser, who was a temperate man; thirty-four years old; native of Tennessee. We had lived in New Orleans during two epidemics of yellow fever, and were familiar with the disease. Did not have yellow fever before. He was in Mobile on the 10th August, 1870, where he remained one day. Sickened 21st of August; died on the 24th; had black vomit. As soon as he died the body became mottled - purple and pale yellow. Several of the neighbors visited him during his illness. He was visited once by a physician, but did not learn the doctor's opinion of the disease.

Second case.—Mr. Roach; occupation, hotel keeper; age, about sixty; native of the South. He was in Mobile August 22d and 23d; was confined to his bed September 2nd, and died on the 6th or 7th.

All of Mr. Roach's family were about him during his sickness, but none of them were sick subsequently.

Third case—Was a black woman, servant in Roach's house. She was sick but four or five days, and died with black vomit.

Fourth case.—Edwin Renfrow, who visited both Wiser and Roach while they were sick. Renfrow was not sick until some time in October, I think. Did not live long after he was attacked, and turned quite yellow before his death.

There was a gentleman named Welch, living in Pollard, who visited Mr. Roach and attended his funeral. He sickened and died of the same disease that Mr. Wiser and Mr. Roach died with. Welch had been nowhere else to contract the disease.

Hiram Renfrow's Statement.

Wiser's was the first case that occurred here. My father, Edwin Renfrow, was a native of the South; 65 years old; never had yellow fever before. He visited Wiser during his (Wiser's) sickness, and helped "lay him out."

Roach visited Wiser during the latter's sickness and, I think, contracted the disease from him. I do not remember that Roach was in Mobile, but know that his sickness and death soon followed Wiser's. Welch, of Pollard, visited Roach during his illness, and was soon confined to his bed; his sickness terminated fatally within ten days of his visit to Roach's sick-room. Welch's disease was reported to be the same as the fatal cases at this place. My father's death did not occur until November 20th. Was sick four days—had black vomit.

THE EPIDEMIC OF 1873.

Hiram Renfrow's Statement.

In July McKay, a bridge builder, who had been working on the wharves at Pensacola, was ill near Bogia, (11 miles south of Whiting). As soon as he was able to go around, he attended a party at James Brown's section

house. Mrs. Beasley and her daughter attended the party; both of them became sick within a week after of a disease pronounced yellow fever, and died in seven or eight days. They were not seen by a physician.

Samuel Christian, telegraph operator in the Whiting office, visited them during their illness, at their residence, 2½ miles south of Whiting. Christian became sick in a few days, and died four days after his attack. He had black vomit and was quite yellow. James Hilliard sickened at Bluff Springs (5 miles south of Whiting) in July. His complaint was similar to others mentioned. Had attended a party at section house. Recovered.

Mrs. Philyan nursed Hilliard, her nephew. She died last of August; had black vomit and was yellow.

Other persons visited Mrs. Philyan, and were subsequently sick of a similar disease. Burgess Miles, Jr.; recovered. Miss Nancy Baggett, had black vomit; died fifth day of sickness.

Henry Steiner lived in Whiting, in the same house with the operator, Christian; he sickened soon after Christian's death; had black vomit, and died within a week of the attack.

Hale's two children were the next taken. They were frequently in the room adjoining Hale's during his sickness, with only a thin board partition separating. Both children died on the fourth or fifth day of illness, with black vomit. Mrs. Henry Brown's death on the fifth day of her illness, followed. She had black vomit. After Mrs. Brown's death George Knowles, who had visited several of the cases, died on the seventh day of illness; had black vomit. He lived two miles in the country. No other member of his family had the disease.

Henry Brown's Account of the Fever of 1873.

My wife's was the first case to my knowledge. She was taken August 27th, died September 2nd; did not have black vomit. Her disease quickly rendered her so feeble she could not help herself. After death, the body was of a light yellow color. I do not think she was exposed to any sickness of the kind; but the passenger cars from Pensacola, where yellow fever was prevailing, stood over night in front of my house, perhaps within fifty yards, and the train-men daily swept and dusted the cars at that place. Six (6) more cases, (including myself), occurred in quick succession in my family, none of which were fatal. One of the cases which recovered had black vomit. Steiner was the second person who sickened and died. He was in the habit of sleeping in the Pensacola passenger coach at night. In fact, I attributed the sickness of several men to their association with the train-men from Pensacola, and frequenting the Pensacola passenger car. John Richardson, who lived 13 miles in the country, came to me the first day I arose from the sick-bed to get a check cashed. He was quite apprehensive and remained in my house not more than fifteen minutes, when he returned home. He sickened and died within ten days after his visit to me. His disease was said to have been the same that prevailed here. Mrs. Beasley and her daughter, I am quite positive, contracted their disease in

my house, where they were one day, during my wife's illness. In addition to the cases which have been reported to you (the writer), there died several others of the same disease; among which I remember Thos. Miller, two colored people in the village, and one colored man a short distance in the country. I can remember a number of cases that recovered among our citizens, footing up 36 persons; 13 of whom died. Besides these, there were several passengers from Pensacola, sick at the hotel, with no deaths.

L. E. Howard's Account of Fever of 1873.

From the first to the 20th of September, my wife, myself, James Coker, Mrs. Sturdivant, Jno. Purvis, two of his brothers, his mother, and Jno. Elliott, all had mild cases of the prevailing fever, also Henry McCutchen; all recovered. All were similarly affected. There were in the village and in the adjoining country forty cases, fourteen of which were fatal.

We were visited but two or three times by physicians, who pronounced the disease yellow fever. Our main reliance was a Cuban nurse, who stood by us during the whole trouble.

Wm. Townsend's Account of Fever of 1873.

The first case that I know of was Mrs. Henry Brown. She had visited Bagby's wife, who was sick at the hotel. Bagby was the conductor of the passenger train running to Pensacola; from which place he had brought his family a short time before. None of the members of Bagby's family were considered to be very sick; they all recovered; and they were visited more or less by the citizens. But one case of the prevailing sickness occurred in my family—one of my children—a girl of three years, who turned quite yellow; was quite feeble for several months afterwards.

LIST OF SICK—FEVER OF 1873.

Mrs. Henry Brown, white—fatal.
Mrs. Elijah Beasley, white—fatal.
Miss Emma Beasley, white—fatal.
Samuel Christian, white—fatal.
Mrs. Philyan, white—fatal.
Jas. Hilliard, white—recovered.
Burgess Miles, Jr., white—recovered.
Miss Nancy Baggett, white—fatal.
George Knowles, white—fatal.
Henry Brown, white—recovered.
Miss Thara Brown, white—recovered.
Mrs. Brown, white—recovered.
Miss Jennie Beasley, white—recovered.
Miss Lucy Beasley, white—recovered.
Jas. Brown, Jr., white—recovered.
Thos. Miller, white—fatal.
Hale's two children, white—fatal.

Three (3) colored people (names not known)—fatal.
Jno. Richardson, white—fatal.
Isaac Martin, white—recovered.
Jno. Purvis, two of his brothers, and mother, white—recovered.
John Elliott, white—recovered.
James Coker, white—recovered.
Mrs. Sturdivant, white—recovered.
L. E. Howard, white—recovered.
Mrs. L. E. Howard, white—recovered.
Mrs. Wiser, white—recovered.
Henry McCutcheon, white—recovered.
Carrie Townsend, white—recovered.
J. D. Van Horn, white—recovered.

THE ACTION OF THE ASSOCIATION ON THE REPORT OF THE BOARD OF CENSORS.

The Senior Censor read the Report of the Board of Censors and Committee of Public Health by sections, and submitted the several sections separately for the consideration of the Association. In this way the following votes were taken, namely:

(1) It was moved by the Senior Censor that the recommendations of the Board of Censors in regard to the enforcement of the constitutional rule regulating the examination of applicants preliminary to the study of medicine, be approved by the Association.

The motion was unanimously adopted.

(2) It was moved by the Senior Censor that the recommendation of the Board of Censors in regard to the presentation of certain bills relating to the sanitary interest of the State, be approved by the Association.

The motion was unanimously adopted.

(3) It was moved by the Senior Censor that the recommendations of the Board of Censors in regard to the question of Medical Ethics and the correction of certain abuses, as established by the Mobile County Medical Society, be approved as an amendment to the ordinances relating to Medical Ethics as enacted at the session of 1881.

The motion was unanimously adopted.

(4) It was moved by the Senior Censor that the recommendations of the Board of Censors in regard to the memorial of the Women's Christian Temperance Association be approved.

The motion was unanimously adopted.

(5) It was moved by the Senior Censor that the recommendation of the Board of Censors in regard to the badge of the grade of Grand Senior Counsellor, as presented with design for the same, be accepted and approved by the Association.

The motion was unanimously adopted.

(6) It was moved by the Senior Censor that the report of the Secretary be approved by the Association.

The motion was unanimously adopted.

(7) It was moved by the Senior Censor that the report of the Treasurer be approved by the Association.

The motion was unanimously adopted.

(8) It was moved by the Senior Censor that the instruction of the Board of Health regarding the Book of Accounts, be approved by the Association.

The motion was unanimously adopted.

(9) It was moved by the Senior Censor that the recommendation of the Board of Censors to grant charters to the Medical Societies of Coosa and Henry counties, be approved by the Association.

The motion was unanimously adopted.

(10) It was moved by the Senior Censor that the recommendation of the Board of Censors in regard to the abrogation of certain rules governing county boards of medical examiners, be approved by the Association.

The motion was unanimously adopted.

(11) It was moved by the Senior Censor that the recommendation of the Board of Censors in regard to the Board of Medical Examiners of Greene county, be approved by the Association.

The motion was unanimously adopted.

(12) It was moved by the Senior Censor that the recom-

mendation of the Board of Censors in regard to the Board of Medical Examiners of Limestone county, be approved by the Association.

The motion was unanimously adopted.

(13) It was moved by the Senior Censor that the recommendation of the Board of Censors in regard to the Medical Examiners of Randolph county be approved by the Association.

The motion was unanimously adopted.

(14) It was moved by the Senior Censor that the recommendation of the Board of Censors in regard to the Medical Examiners of Tallapoosa county be approved by the Association.

The motion was unanimously adopted.

(15) It was moved by the Senior Censor that the recommendation of the Board of Censors acting as a Committee of Public Health, in regard to memoralizing the President of the United States to continue the Ship Island Quarantine Station, and the appropriation of certain monies for the maintenance of the same, be approved by the Association.

The motion was unanimously adopted.

(16) It was moved by the Sensor Censor that the recommendations of the Board of Censors, acting as a Committee of Public Health, in regard to obtaining a suitable office for the State Health Officer, the employment of a clerk, and for the transfer and deposit of the books and records of the Assaciation be approved.

The motion was unanimously adopted.

(17) It was moved by the Senior Censor that the recommendation of the Board of Censors, acting as a Committee of Public Health, in regard to the several reports of the State Health Officer on vital statistics, yellow fever quarantine, &c., be approved by the Association.

The motion was unanimously adopted.

(18) It was moved by the Senior Censor that the report of the Board of Censors and Committee of Public Health, as a whole, be approved by the Association.

The motion was unanimously adopted.

The first part of this report was intended as a solution of the ethical problem propounded to the Board of Censors, viz.: whether a physician placed under the ban by a local society, for violating some rule, should be recognized by the profession, and consulted in regard to a patient, so long as his offense remained.

In answer to this question, Dr. Cochran said that a physician so placed should be looked upon as an irregular, and treated as such.

Dr. McDaniel, of Camden, said that such a rule would work very well in a city, where a physician, at choice, could be called in consultation in a few moments, by aid of the telephone; whereas he, being a country practitioner, would be forced, when the exigency arose, to accept such a physician. He must, therefore, object to it.

Dr. Cochran announced that the rule was only law in the abstract, and could be followed or rejected, at the discretion of the local societies.

The Senior Censor, in answer to the memorial from the Woman's Christian Temperance Union, referred to the Board of Censors on yesterday, asking that the Association recommend the adoption of catechetical text books on alcohol and hygiene in the public schools of the State, &c., said that the same had been duly considered by the Board; and whilst they applaud the objects of the mission, the Association dealt with temperance only as a matter of science.

The grade of Grand Senior Counsellor, provided for in the report of the Board of Censors, and adopted at the last session, specifies that each Counsellor of ten years standing be vested with a medal, in recognition of his services to the Association, and as the badge of his new dignity. The Senior Censor was, therefore, charged with the preparation of a design for such a medal.

In obedience to instructions from the Association, Dr. Cochran presented a finely executed design, in water colors,

which the Board of Censors had agreed to adopt, the cost of which would be about $25.00.

This was submitted to the members for inspection, and, after some discussion, adopted.

Dr. Means said that whilst the design and symbols of the order were proper and acceptable to the Association, as well as to himself, he thought it appropriate to wear this reward of merit only on public occasions and during the sessions of the Association. He thought there should be a more simple and inexpensive badge, one distinctive of the several grades in the College of Counsellors, to be worn in the button-hole of the coat, as do members of the Legion of Honor of France, and in our every-day life. He ,therefore, offered the following resolution, which was, on motion of Dr. Riggs, of Selma, referred to a committee of three, consisting of Dr. Means, of Montgomery; Dr. Cochran, of Mobile; and Dr. B. H. Riggs, of Selma, to report at the next meeting of the Association, at Selma:

Resolved, That as a mark of distinction and honor, the several members of the College of Counsellors be invested with a button rosette, or tuft, to be worn on the lapel of the coat, and on the left side, at all times; these several buttons to be made alike, graded as to color only, and in the order following, namely:

(1) For Grand Senior Counsellors, dark bottle green. (2) For Senior Counsellors, deep red or chestnut brown. (3) For Junior Counsellors, scarlet or bright red.

Dr. Means said that in offering the above resolution, he wished it understood that he presented it in no spirit of opposition to the will of the Association, but because he thought some distinctive recognition should be given to the Senior and Junior Counsellors, who had also won their positions on the rolls by services equally as meritorious.

Dr. McDaniel, of Camden, introduced a resolution, which was adopted, requiring the Alabama Medical College to require certificates of examination from applicants; also, requiring medical examining boards to forward examination

papers to the Senior Censor immediately after an applicant had been examined.

Dr. Cochran represented that he had endeavored to make the report of the Board of Censors and Committee of Public Health as complete as possible, by requiring all the county health officers to keep a record of fevers peculiar to the climate of Alabama, which he considered a matter of much importance, but so far nothing had been done in the matter.

The quarantine at Ship Island, which is kept up at the expense of the Board of Health, Dr. Cochran thought a matter of signal importance to many Alabamians; and as this quarantine will be removed on the 2d day of June next, by limitation, the Board of Censors and Committee of Public Health deemed it advisable for the Association to memorialize the President to continue the quarantine at Ship Island.

This suggestion was put in the form of a resolution, and adopted.

THE REVISION OF THE BOOK OF THE ROLLS.

The President called attention to the great importance of the business next in order, namely, the Revision of the Book of the Rolls.

It is the peculiar characteristic of our organization that when any duty is required, whether of the auxiliary societies or of the Counsellors, annual reports as to the performance or non-performance of such duty are also required.

The Association insists upon knowing how her delegated work is done. She will always find means to reward the good and faithful servant; while her duty to herself and to the State demands that all county societies which are negli-

gent of their duties, and all delinquent Counsellors shall be at once cut off from her communion. This end is what is aimed at in the revision of the rolls, to which we now proceed.

(1) THE REVISION OF THE ROLL OF THE COUNTY SOCIETIES.

The roll of the County Medical Societies was called in order, and all of them being satisfactorily accounted for by Delegates, or by Counsellors, by Annual Reports submitted, and by payment of dues, were favorably passed upon and ordered to be retained upon the Roll, except the following, namely:

The Bibb County Medical Society.

This society having failed to send delegates and annual reports as required by the rules of the Association, was ordered to be investigated by the Board of Censors.

The counties of Chambers, Crenshaw, Macon, Monroe and Pike, failed both in representation and reports.

The following County Medical Societies, viz:

The Coosa County Medical Society,

The Henry County Medical Society,

Having been granted charters, upon the recommendation of the Board of Censors, were ordered to be added to the Roll of the County Medical Societies.

The Roll of the County Medical Societies was closed until the Annual Session of the Association in 1884.

(2) THE REVISION OF THE ROLL OF THE COLLEGE OF COUNSELLORS.

All the Counsellors were satisfactorily accounted for, and were ordered to be retained on the Roll, except the following, namely: Caleb Bliss Lampley, M. D., Senior Counsellor of 1875, and John Thomas Broughton, M. D., Junior Counsellor of 1880, both of Greenville, were reported as delinquent of dues for 1882. Their names were ordered struck from the Roll.

Phillip Noble Cilley, M. D., of Lowndesboro, Junior Counsellor of 1879, was reported as having been absent from three successive sessions, and his name ordered to be struck from the Roll.

Albert Russel Erskine, M. D., of Huntsville, Junior Counsellor of 1880, was reported as having been absent from three successive sessions, and his name was ordered to be struck from the Roll.

Levin Wilson Shepherd, M. D., of Opelika, Junior Counsellor of 1880, was reported delinquent of dues for 1881, and his name ordered to be struck from the Roll at the Mobile session, but by mistake it appears on the Roll for 1882.

W. W. Wilkerson, M. D., of Marion, Perry county, Junior Counsellor of 1878, should have been dropped at the Mobile session for non-attendance on three successive meetings; having paid his dues regularly, and so reported by the Treasurer, he was passed at the Mobile session and retained on the Roll by mistake.

Calvin S. Crow, M. D., of Moulton, Lawrence county, Counsellor of 1881, offered his resignation. The resignation was accepted, and his name ordered to be struck from the Roll.

Frederick Fannin Gage, M. D., of Selma, Dallas county, Junior Counsellor of 1880, offered his resignation on account of removal to Atlanta, Georgia. The resignation was accepted, and his name ordered struck from the Roll.

John Cooper Lee, M. D., of Blount Springs, Blount county, Junior Counsellor of 1877, instead of 1878, as published last year, should have been transferred to the Roll of Senior Counsellors for 1882. Correction is here made, and his name will appear in the Transactions for 1883.

Dr. John Denison Stearns, a graduate of Harvard University, and formerly a member of the Pike County Medical Society (1880), and resident at Orion, removed to Geneva, Coffee county, and his name struck from the roll of members of the Pike County Medical Society. He paid his dues, however, to the Association as Junior Counsellor for 1881,

was retained on the roll of that year, and so published. In 1882 he also paid his dues, and should have been retained; but having removed into a county where no County Medical Society existed, lead to the error mentioned in the list of omissions. Notification of the death of Dr. Stearns, which occurred October 30th, 1882, has just been received.

The following Counsellors elect, having signified their acceptance and paid their dues, their names were ordered to be added to the Roll under date of 1883:

Brockway, Dudley Samuel, Coatopa, Sumter county.
Cross, William Cyprian, Centreville, Bibb county.
Franklin, Charles Higgs, Union Springs, Bullock county.
Goodwin, James Anderson, Jasper, Walker county.
Hawkins, Richard Nathaniel, Montevallo, Shelby county.
Hill, Samuel Henry, Carrollton, Pickens county.
Jay, Andrew, Jr., Evergreen, Conecuh county.
Kendrick, Joel C., Greenville, Butler county.
Luckie, James Buckner, Birmingham, Jefferson county.
Moody, Joseph, Bridgeville, Pickens county.
Sawyer, William T., Mobile, Mobile county.
Shivers, Offa Lundsford, Newbern, Hale county.
Sledge, William Henry, Livingston, Sumter county.
Smith, Daniel Edgarly, Mobile, Mobile county.
Stovall, Andrew McAdams, Jasper, Walker county.
Tipton, Frank, Selma, Dallas county.

The Secretary announced that there were nine vacancies in the College of Counsellors, whereupon the ballot was ordered and resulted in the following selections to fill the vacancies:

Bowie, Andrew, Benton, Lowndes county.
Emory, Aurelius G., Opelika, Lee county.
Goggans, James Adrian, Alexander City, Tallapoosa county.
Gordon, Frederick Elliott, Linden, Marengo county.
Holt, Simon Augustus, Eufaula, Barbour county.
Pierce, Dunklin, Benton, Lowndes county.
Ward, Henry Bascom, Cuba, Sumter county.
Watson, Charles McAlpine, Eutaw, Greene county.
Wilkerson, Wooten Moore, Montgomery, Montgomery county.

The twenty-two Senior Counsellors whose names here follow, having served the Association for ten consecutive

years, were ordered to be transferred to the Roll of the Grand Senior Counsellors:

Anderson, William Henry, Mobile, Mobile county.
Bryce, Peter, Tuskaloosa, Tuskaloosa county.
Cochran, Jerome, Mobile, Mobile county.
Dement, John Jefferson, Huntsville, Madison county.
Fournier, Edmund Henry, Mobile, Mobile county.
Gaines, Edmund Pendleton, Mobile, Mobile county.
Jackson, Walter Clarke, Montgomery, Montgomery county.
Jackson, Robert Dandridge, Summerfield, Dallas county.
Jordan, Mortimer Harvey, Birmingham, Jefferson county.
Ketchum, George Augustus, Mobile, Mobile county.
Kumpe, George Ernest, Leighton, Madison county.
McDaniel, Edward Davies, Camden, Wilcox county.
McKinnon, John Alexander, Selma, Dallas county.
McKittrick, Adam Alexander, Evergreen, Conecuh county.
Michel, Richard Fraser, Montgomery, Montgomery county.
Parke, Clifford Daniel, Selma, Dallas county.
Reese, Augustus Jordan, Mobile, Mobile county.
Riggs, Benjamin Hogan, Selma, Dallas county.
Ross, Francis Armstrong, Mobile, Mobile county.
Toxy, Caleb, Mobile, Mobile county.
Weatherly, Job Sobieski, Montgomery, Montgomery county.
Webb, Robert Dickens, Livingston, Sumter county.

The Junior Counsellors whose names here follow, were elected at the Eufaula session, 1878, and having served as such for five consecutive years, were ordered to be transferred to the Roll of the Senior Counsellors:

Baker, Paul DeLacy, Eufaula, Barbour county.
Bivans, Joseph, Gadsden, Etowah county.
Means, Thomas Alexander, Montgomery, Montgomery county.
Mitchell, William Augustus, Eufaula, Barbour county.
Sanders, William Henry, Mobile, Mobile county.
Winn, James Julius, Clayton, Barbour county.

The Roll of the College of Counsellors was here closed until the next Annual Session of the Association.

(3) THE REVISION OF THE ROLL OF CORRESPONDENTS.

There being no other action necessary in the Roll of the Correspondents, it was ordered that it so remain until the Annual Session of 1884.

NOTE.—The Secretary was instructed to communicate with the several correspondents of the Association with a view to the production of good fellowship, and inviting them to make contributions to the Transactions.

(4) THE REVISION OF THE ROLL OF OFFICERS.

The secretary announced the following vacancies in the Roll of Officers, namely:

One president, two vice presidents, one secretary, one treasurer, two members of the Board of Censors and Committee of Public Health, one orator, and one alternate orator; whereupon the ballot was ordered and resulted in the following selections to fill the several positions named:

President—Mortimer H. Jordan, M. D., Birmingham.

Vice Presidents—Frank Tipton, M. D., Selma; Samuel M. Hogan, M. D., Union Springs.

Secretary—Thomas A. Means, M. D., Montgomery, for five years.

Treasurer—Walter C. Jackson, Montgomery, for five years.

Board of Censors and Committee of Public Health—Jerome Cochran, M. D., Mobile, for five years; Benjamin H. Riggs, M. D., Selma, for five years; William H. Johnston, M. D., for one year, to fill the unexpired term of Dr. Jordan.

Orator—William H. Sanders, M. D., Mobile.

Alternate Orator—Wooten M. Wilkerson, M. D., Montgomery.

The roll of officers was closed until the next annual session of the Association.

MISCELLANEOUS BUSINESS.

The following preamble and resolution, offered by Dr. Andrew Bowie, of Benton, Lowndes county, were adopted by an unanimous vote:

Mr. President, I beg leave, in behalf of the Medical Association of the State of Alabama, to offer the following resolution, as an expression of grat-

itude for the many kindnesses shown us during the session of the Association about to close:

Resolved, That the thanks of this Association are due and are hereby tendered to the citizens of Birmingham, and especially to the ladies, for their kindly and generous hospitality; to the *Daily Age*, for its faithful record of the proceedings of this Association; and through their Committee of Arrangements to the Medical Society of Jefferson county, for their kind, constant and generous solicitude for the comfort and happiness of the members of this Association during their stay in this beautiful and hospitable city.

That the secretary of this Association be requested to communicate these resolutions of thanks to those whom it may concern.

Dr. Mortimer H. Jordan, president elect, was escorted to the chair by Drs. Weatherly, of Montgomery, and Johnston of Selma, and introduced by Dr. C. D. Parke, as the future president of the Medical Association of the State of Alabama, who said he thought the Association, in placing Dr. Jordan at the head of its affairs, had made a good and wise selection.

Dr. Jordan, in a few words, thanked the members of the Association for the honor they had just conferred upon him, for he deemed it a higher dignity than being elected the chief magistrate of the State.

On motion of Dr. Cochran, the Association then adjourned *ine die*.

THE ANNUAL REGISTER

OF THE

MEDICAL ASSOCIATION OF THE STATE OF ALABAMA.

THE BOOK OF THE ROLLS OF THE MEDICAL ASSOCIATION OF THE STATE OF ALABAMA.

INTRODUCTION.—The labor expended in the effort to make this edition of the Register complete in its many details, has been rewarded by reasonable success. Errors of omission are sometimes unavoidable, and must continue to occur until secretaries of the several Societies exercise greater care in making out their reports.

THE ROLL OF THE COUNTY MEDICAL SOCIETIES.

REVISION OF 1883.

AUTAUGA COUNTY MEDICAL SOCIETY.

President—Samuel P. Smith, M. D., Prattville.
Secretary—John E. Wilkinson, M. D., Prattville.
President of the Board of Censors—A. S. McKeithen, M. D., Prattville.
County Health Officer—Samuel P. Smith, M. D., Prattville.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Davis, John W., Atlanta medical college, Prattville.
Edwards, Charles Alva, Memphis medical college, Prattville.
Howard, Thomas G., Washington University, Baltimore, Mulberry.
McKeithen, Archibald Smith, medical college of Virginia, Prattville.
McNeil, Dunkin M.; Kentucky School of Medicine, Autaugaville.
Sadler, William F., College of Physicians and Surgeons, Baltimore, Autaugaville.
Smith, Samuel Parish, University of Louisiana, 1838, Prattville.
Thompson, Green Hill, Alabama medical college, Autaugaville.
Wilkerson, John E., University of Louisiana, Prattville.
Membership—9.
Howard, Charles M., (honorary member) medical college of South Carolina, Autaugaville.

REGULAR PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Golson. Wyatt, college not given, Independence.
Pope, Willis, University of Pennsylvania, Milton Beat.
Sherill, S. L., college not given, Jones' Switch.

There are no irregular practitioners in the county.

BARBOUR COUNTY MEDICAL SOCIETY.

President—J. Julius Winn, M. D., Clayton.
Secretary—Albert Goodwin, M. D., Eufaula.
President of the Board of Censors—Simon A. Holt, M. D., Eufaula.
County Health Officer—Paul DeLacy Baker, M. D., Eufaula.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Baker, Paul DeLacy, Georgia medical college, Eufaula.
Copeland, W. P., Bellevue Hospital medical college, Eufaula.
Drewry, John Wallace, Jefferson medical college, Eufaula.
Goodwin, Albert, University of Louisville, Eufaula.
Holt, Simon Augustus, University of New York, Eufaula.
Johnston, Egbert Beall, medical college of South Carolina, Eufaula.
Mitchell, William Augustus, University of Louisiana, Eufaula.
Patterson, Thomas, Atlanta medical college, Louisville.
Warren, Monroe, University of Louisiana, Clayton.
Winn, James Julius, Atlanta medical college, Clayton.
Membership—10.
Bledsoe, F. M. (honorary member) Georgetown, Ga.

REGULAR PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Battle, J. T., Georgia medical college, 1868, Hawkinsville.
Battle, J. T., University of Louisiana, 1853, Eufaula.
Carter, W. W., college not given, Jernigan.
Clarke, J. Wesley, Kentucky School of Medicine, 1878, Harris'.
Crews, J. E., Georgia medical college, 1853, Clayton.
Crymes, A. C., Jefferson medical college, 1856, Batesville.
Durby, John Isaac, Louisville medical college, 1880, King's.
Davie, M. S., college not given, Clayton.
Davie, Judson, Georgia medical college, 1872, Cowikee.
Faulk, Bingham, college not given, Elandsville.
Herron, E. M., medical college of South Carolina, Louisville.
Johnston, T. A., University of Tennessee, Eufaula.
Johnston, Egbert Beall, Jr., Alabama medical college, Eufaula.
Martin, J. P., Bellevue Hospital medical college, Louisville.
Pouncy, J. B., collge not given, Cowikee.
Prewitt, J. H., college not given, Harris'.
Turner, Alexander, medical college of South Carolina, White Oak.

Williams, Z. W., College Physicians and Surgeons, Baltimore, Hawkinsville.

IRREGULAR PRACTITIONERS IN THE COUNTY.

Reynolds, John A., (Eclectic) Pea River.
Rousseau, W. A., (Eclectic) Batesville.

Removed from the county—Drs. W. R. Moye, formerly of Starr Hill, and W. P. Waldon, post-office unknown.

BIBB COUNTY MEDICAL SOCIETY.

President—J. W. Brand, M. D., Randolph.
Secretary—William C. Cross, M. D., Centreville.
President of the Board of Censors—J. W. Brand, M. D., Randolph.
County Health Officer—Wm. C. Cross, M. D., Centreville.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Brand, J. W., Virginia medical college, Randolph.
Cross, William Cyprian, Vanderbilt University, Centreville.
Whitfield, Oscar, Vanderbilt University, Briarfield.

REGULAR PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Hickman, Jas. H., certificate county board of Tuskaloosa county, Green Pond.
McPherson, R. R., Vanderbilt University, Day's Mills.
Monroe, D. E., (undergraduate) Green Pond.
Owen, William, (undergraduate) Green Pond.
Randall, H. W., Transylvania University, Briarfield.

IRREGULAR PRACTITIONERS IN THE COUNTY.

Jones, R. S., (Eclectic) Macon, Ga., Randolph.

Removed from the county—Drs. C. L. Wooley, formerly of Abercrombie, to Florida, and R. J. Walker, formerly of Scottsville, to Vance's Station, Tuskaloosa county.

Moved into the county—Dr. William C. Cross, formerly of Tuskaloosa, Tuskaloosa county, to Centreville.

Died—Dr. James W. Crawford, Centreville, President of the Bibb county medical society, President of the Board of Censors, and county health officer, April 11th, 1883.

This society had no representative at the Birmingham session, and no report was received from it at the time. It was therefore ordered to be investigated by the Board of Censors. [Full reports have since been received from this society.—SEC.]

BLOUNT COUNTY MEDICAL SOCIETY.

President—S. H. Estelle, M. D., Blount Springs.
Secretary—J. H. Willoughby, M. D., Arkadelphia.

President of the Board of Censors—S. H. Estelle, Blount Springs.
County Health Officer—J. H. Willoughby, Arkadelphia.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Allgood, William B., Southern medical college, Chepultepec.
Carver, Robt. D., college not given, Blountsville.
Donehoe, F. G., Atlanta medical college, Murphree's Valley.
Davidson, A. S., certificate county board, Gurley's Creek.
Estelle, S. H., certificate (old board) medical examiners Tuskaloosa county, 1842, Blount Springs.
Harden, Andrew W., Atlanta medical college, Summit.
Hendricks, J. F., certificate county board, Wynnville.
Moore, Daniel S., Atlanta medical college, Wynnville.
Oates, D. D., University of Pennsylvania, Ogee.
Parker, William P., Atlanta medical college, Blountsville.
Whaley, Lewis, Atlanta medical college, Blountsville.
Willoughby, John Henchia, certificate county board, Arkadelphia.
Membership—12.

REGULAR PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Ball, John, certificate Arkansas State board, Blount Springs.
Drennen, Charles, Alabama medical college, Arkadelphia.
Finley, William M., Jr., universities of Nashville and Vanderbilt, 1879, Village Spring.
Hudson, Francis, college not given, Blountsville.
McAnnally, C. C., certificate county board, Hanceville.
Robinson, H. B., college not given, Blount Springs.

Removed from the county—Drs. J. W. Gamble, formerly of Bangor, to Jefferson county, Patrick G. Aldrich, formerly of Brocksville, to Texas, W. L. Thomason, formerly of Summit, to Guntersville, Marshall county.

Retired from practice—Dr. H. C. Rutherford, Chepultepec.

Dropped from the roll for non-payment of dues—Drs. J. C. Lee, W. S. Ingraham and Thomas J. Griffiths.

BULLOCK COUNTY MEDICAL SOCIETY.

President—Groves Caldwell, M. D., Enon.
Secretary—Robt. H. Hayes, M. D., Union Springs.
President of the Board of Censors—Samuel M. Hogan, Union Springs.
County Health Officer—Charles H. Franklin, Union Springs.

NAMES OF MEMBERS WITH THEIR COLLEGES AND POST-OFFICES.

Banks, Newton P., University of Louisville, 1849, Enon.
Butt, Richard L., University of New York, 1846, Midway.
Bledsoe, Nathaniel M., University of Nashville, 1857, Three Notch.
Caldwell, Groves, University of Pennsylvania, 1845, Midway.
Dismukes, B. J., Georgia medical college, 1857, Mt. Hilliard.

Franklin, Charles Higgs, University of Louisiana, 1866, Union Springs.
Fitzpatrick, Clement T., Memphis medical college, 1849, Fitzpatrick's Station.
Hayes, Robert H., St. Louis medical college, 1879, Union Springs.
Harris, William Stephen, University of New York, 1857, Dickson's Creek, Macon county, Alabama.
Hogan, Samuel Mardis, University of Louisville, Union Springs.
Jernigan, Charles Henry, Jefferson medical college, 1855, Enon.
Jones, William Kennon, University of Pennsylvania, 1856, Union Springs.
Martin, John Elijah, one course in Alabama medical college, 1873, Union Springs.
Mayes, William Aurelius, Georgia medical college, 1855, Midway.
Reynolds, James Henry, University of Nashville, 1854, Mt. Hilliard.
Walker, William Austin, Jefferson medical college, 1854, Perote.
Watkins, Isaac Lafayette, Bellevue Hospital medical college, 1878, Union Springs.
Zeigler, John Olin, one course in Atlanta medical college, 1860, Perote.
Membership 18.

REGULAR PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Crymes, Augustus C., Jefferson medical college, 1856, Midway.
Rumph, J. D., medical college of South Carolina, 1836, Perote.
Swanson, W. S., Atlanta medical college, 1857, Midway.
Thomason, Wm. B., Georgia medical college, 1854, Aberfoil.
Tompkins, G. A., Jefferson medical college, 1837, Mt. Hilliard.
Williamson, S. T., medical college of South Carolina, 1858, Mathews Station.

Dropped from the roll for non-payment of dues—Dr. J. B. Pouncy, Graffenburg Institute, 1853, Flora.

Removed from the county—Dr. J. B. Fitzpatrick, formerly of Fitzpatrick's Station, to Texas.

Died during the year—Drs. James M. Foster and James A. Hayes, both of Union Springs.

There are no irregular practitioners in the county.

BUTLER COUNTY MEDICAL SOCIETY.

President—Joel C. Kendrick, M. D., Greenville.
Secretary—J. Beder Kendrick, M. D., Greenville.
President of the Board of Censors—Curtis B. Herbert, M. D., Greenville.
County Health Officer—Job. Thigpen, M. D., Greenville.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Allman, J. E., Savannah medical college, 1869, Georgiana.
Broughton, John Thomas, University of Pennsylvania, 1852, Greenville.
Blow, John W., certificate county board, Georgiana.

Donald, J. G., University of Louisiana, 1854, Monterey.
Herbert, Curtis Burke, State board medical examiners, 1879, Greenville.
Kendrick, J. B., Alabama medical college, 1882, Greenville.
Kendrick, Joel Cloud, University of Nashville, 1852, Greenville.
Kendrick, William Thomas, Atlanta medical college, 1876, Auburn.
Floyd, C. C., Atlanta medical college, 1856, Greenville.
McCane, J. J., University of Louisiana, 1882, Greenville.
Oliver, H. F., University of Pennsylvania, Georgiana.
Owen, Jared D., Alabama medical college, 1879, Greenville.
Simmons, W. C., certificate county board, Manningham.
Scott, Henry E., Vanderbilt University, 1880, Manningham.
Thigpen, Job, Georgia medical college, 1856, Greenville.
Wall, Conrad, University of Nashville, 1859, Forest Home.
Webb, Foster C., certificate county board, Greenville.
Webb, O. F., Alabama medical college, 1880, Greenville.
Wright, W. P., certificate county board, Bolling.
Membership—19.

REGULAR PHYSICIANS, NOT MEMBERS OF THE SOCIETY.

Baldwin, J. A., Atlanta medical college, 1859, Georgiana.
Brownlee, R. M., certificate county board, Fort Deposit.
Cook, W. H., Transylvania University, 1834, Georgiana.
Garrett, J. J., Transylvania University, Monterey.
Harrison, Joseph, Transylvania University, Greenville.
Knight, J. C., New Orleans school of medicine, 1868, Monterey.
Lampley, Caleb Bliss, University of New York, 1851, Greenville.
McCane, T. A., Graffenburg Institute, 1854, Greenville.
Palmer, Thomas Jefferson, University of Pennsylvania, 1856, Greenville.
Perdue, J. L., Alabama medical college, 1875, Greenville.
Pryor, W. D., University of Nashville, 1855, Oaky Streak.
Rosser, W. E., Bellvue Hospital medical college, 1883, Greenville.
Smith, R. E., Alabama medical college, 1882, Greenville.
Steiner, S. J., Vanderbilt University, 1878, Greenville.
Thompson, S. E., Georgia medical college, Greenville.

Died during the year—Dr. Thomas M. Bragg, certificate county board, Greenville. November 28th, 1882, in his 89th year.

Dr. J. J. Steiner, of Greenville, was expelled from the Butler county medical society for unprofessional conduct.

Resigned—Dr. Caleb B. Lampley, of Greenville.

Removed from the county—Drs. Thoms Cross and Arthur S. Stewart, formerly of Greenville.

Moved into the county—Dr. J. J. Garrett from Monroe county.

Drs. J. J. McCane, graduate of the New Orleans school of medicine, and J. Beder Kendrick, graduate of the Alabama medical college, both of Greenville, stood successful examinations before the county medical board, and were granted license to practice medicine.

There are no irregular practitioners in the county.

CALHOUN COUNTY MEDICAL SOCIETY.

President—John Y. Nesbit, M. D., Jacksonville.
Secretary—John E. LeGrand, M. D., Weaver's Station.
President of the Board of Censors—J. Y. Pierce, M. D., Oxford.
County Health Officer—John Y. Nesbit, M. D., Jacksonville.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Allen, E. H., medical college of South Carolina, 1849, Oxford.
Ballard, A. F., certificate county board, 1881, Oxford.
Brothers, P. H., certificate county board, Martin's Cross Roads.
Christian, M. T. W., certificate county board, Oxford.
Davis, John Francis Marion, Atlanta medical college, 1860, Choccolocco.
Davis, Thomas A., University of Louisiana, Anniston.
Huger, Richard Proctor, medical college of South Carolina, 1871, Anniston.
Hughes, J. L., Georgia medical college, 1851, Cross Plains.
Jones, J. H., college not given, Sulphur Springs.
LeGrand, John Clark, Atlanta medical college, 1880, Weaver's Station.
Nesbit, John Young, University of Louisiana, 1854, Jacksonville.
Pierce, John W., Georgia medical college, 1850, Oxford.
Robertson, Thaddeus Lindley, Jefferson medical college, 1881, Oxford.
Weikle, Jesse L., Georgia medical college, 1879, Anniston.
Walker, J. F., certificate county board, 1881.
Membership—15.

REGULAR PHYSICIANS, NOT MEMBERS OF THE SOCIETY.

Bolling, W. E., certificate of county board, Davisville.
Buckalew, H. M., University of Louisiana, ———.
Cowden, J. B., certificate county board, Cross Plains.
Evins, B. S., certificate county board, White Plains.
Francis, J. C., certificate county board, Jacksonville.
Little, W. W., University of Virginia, Cross Plains.
Montgomery, C. H,, Washington University of Baltimore, Jacksonville.
Teague, Robert, certificate county board, Cross Plains.
Williams, B. D., certificate county board, Oxford.
Williams, Thomas J., certificate county board, Peek's Hill.
Williams, G. C., certificate county board, White Plains.

IRREGULAR PRACTITIONERS IN THE COUNTY.

Anderson, W. J., certificate county board, Anniston.

J. E. Crook, Frank P. Landers and Henry E. Pryor, graduates of the Vanderbilt University, class of 1883, passed successful examinations before the county medical board, and were admitted to practice.

N. E. Osborn, of Cross Plains, representing himself as a graduate of the Atlanta medical college, was examined by the county board and refused certificate.

Removed from the county—Dr. Robertson Glasgow, formerly of Davisville, to Virginia; Dr. Spinks, of Olin, post-office unknown.

Died—Dr. E. H. Allen, graduate of the medical college of South Carolina, 1849, March 23d, 1883, at Oxford.

Discontinued practice—Dr. G. C. Williams, White Plains.

CHAMBERS COUNTY MEDICAL SOCIETY.

President—Benjamin J. Foster, M. D., LaFayette.
Secretary—William B. Trent, M. D., LaFayette.
President of the Board of Censors—Benjamin F. Rea, M. D., LaFayette.
County Health Officer—Benjamin J. Foster, M. D., LaFayette.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Beasley, James, M., Atlanta medical college, West Point, Ga.
Davis, James L., Alabama medical college, LaFayette.
Eley, Michael J., University of Nashville, LaFayette.
Foster, Benjamin J., Georgia medical college, LaFayette.
Grady, Zachery T., Atlanta medical college, Fredonia.
Griggs, Asa W., University of Nashville, West Point, Ga.
McIntosh, Marcellus E., Georgia medical college, LaFayette.
Rea, Benjamin Franklin, Jefferson medical college, LaFayette.
Tyson, Wiley W., Georgia medical college, Fredonia.
Trent, William B., University of Louisville, LaFayette.
Membership—10.

REGULAR PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Bloodworth, H. M., Atlanta medical college, Opelika.
Bruce, Henry J., Atlanta medical college, Waverly.
Carmichael, James M., Graffenburg institute, Hickory Flat.
Cooper, John W., medical college of South Carolina, West Point, Ga.
Dawson, E. W., University of New York, Hickory Flat.
Frederick, A. H. R., University of New York, Cusseta.
Hamner, L. P., certificate county board Randolph county, LaFayette.
Johnson, H. H., certificate county board Tallapoosa county, Mill Town.
Perry, C. Franklin, Atlanta medical college, LaFayette.
Pinkston, J. P., Graffenburg institute, Kendall's Cross Roads.
Rutland, John R., Southern medical college, Fredonia.
Smith, James Lawrence, Georgia medical college, Cusseta.
Trammell, W. M., University of New York, LaFayette.

There are no irregular practitioners in the county.

William G. Carlton, graduate of Vanderbilt university, class of 1882, passed a successful examination before the county board, and was admitted to practice.

Removed from the county—Dr. William G. Carlton, to Dudleyville, Tallapoosa county.

CHILTON COUNTY MEDICAL SOCIETY.

President—Isaac D. Lanier, M. D., Clanton.
Secretary—William E. Stewart, M. D., Clanton.
President of the Board of Censors—John A. McNeill, Jemison.
County Health Officer—John P. Robinson, M. D., Clanton.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Bivings, Albert Eugene, medical college of South Carolina, 1875, Clanton.
Dawson, James J., licensed under the old law, 1856, Rockford.
Duke, Francis M., University of Tennessee, 1871, Clanton.
Givhan, J. Phillip, college not given, Lomax.
Johnson, Joseph S., Sr., Georgia medical college, 1859, Maplesville.
Johnson, Joseph S., Jr., Baltimore medical college, 1876, Maplesville.
Lanier, Isaac D., Jefferson medical college, 1856, Clanton.
McNeill, John A., medical college of South Carolina, 1852, Jemison.
Pitts, John S., University of Tennessee, 1858, Verbena.
Robinson, John, P., Jefferson medical college, Clanton.
Stewart, William Eugene, University of Louisville, 1875, Clanton.
Membership—11.

REGULAR PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Callier, Thomas E., college not given, Calliersville.
Wise, John F., college not given, Cooper's.
Williamson, S. T., medical college of South Carolina, Verbena.

There are no irregular practitioners in the county.

Died—Dr. John Hendrie, of Dixie, formerly of Selma, on the 6th day of May, 1883.

No examinations.

COLBERT COUNTY MEDICAL SOCIETY.

President—J. W. Rand, M. D., Tuscumbia.
Secretary—S. J. Cooper, M. D., Tuscumbia.
President of the Board of Censors—R. T. Abernathy, M. D., Tuscumbia.
County Health Officer—T. J. Bickley, M. D., Tuscumbia.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Abernathy, R. T., college not given, Tuscumbia.
Bickley, Thomas J., college not given, Tuscumbia.
Cooper, S. J., college not given, Tuscumbia.

Moore, J. H., college not given, ———.
Pride, J. P., college not given, Pride's Station.
Rand, E. P., college not given, Tuscumbia.
Rand, Edgar, college not given, Leighton.
Rand, J. W., college not given, ———.
Wheeler, W. C., college not given, ———.
Williams, Albert, college not given, ———.
Williams, Charles, college not given, ———.
Membership—11.

The roll of officers here given is that of 1881, and should have been published in the roll of county societies last year, but was overlooked by the Secretary. It is here inserted with the same imperfections as formerly; and as the society has failed to send a report or representation at this meeting, it was ordered to be investigated by the Board of Censors.

CHOCTAW COUNTY MEDICAL SOCIETY.

President—Mathew Turner, M. D., Bladen Springs.
Secretary—William C. Forster, M. D., Mount Sterling.
President of the Board of Censors—V. P. Gaines, M. D., Mount Sterling.
County Health Officer—W. W. Johnson, M. D., Butler.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Breitling, Joseph, Jefferson medical college, Butler.
Brown, C. B., Nashville medical college, 1880, Kaiser Hill.
Coleman, Robert H., Jefferson medical college, Isnay.
Forster, William C., University of Louisville, 1882, Mount Sterling.
Foster, John T., certificate county board, Mount Sterling.
Gaines, Vivian Pendleton, Alabama medical college, 1872, College of Physicians and Surgeons, New York, 1873, Mount Sterling.
Gilmer, O. B., Alabama medical college, 1872, Butler.
Harmon, Robert H., University of Louisiana, Pushmataha.
Harrell, J. D., University of Louisiana, Nicholson's Store.
Harrell, O. F., University of Pennsylvania, 1859, Millry.
Hendrix, J. J., certificate county board, 1880, Womach's Hill.
Horne, William R., University of Louisiana, Pelham.
Johnson, W. W., Alabama medical college, 1872, Butler.
Johnson, Samuel F., certificate county board, 1880, Butler.
Kimbrough, W. T., Alabama medical college, 1883, Bladen Springs.
McCall, Daniel, Atlanta medical college, Desotoville.
McNeely, John N., University of Louisiana, Tompkinsville.
Moody, Robert F., University of Louisiana, Butler.
Miller, Martin Van Buren, Alabama medical college, and college of Physicians and Surgeons, New York, 1877, Yantley Creek.
Turner, Mathew, college not given, Bladen Springs.
Membership—20.

HONORARY MEMBERS.

Harris, A. P., University of Louisiana, Pushmataha.
Lassiter, James R., University of Louisiana, Mount Sterling.
Lenoir, J. L., Alabama medical college, St. Stephens.
O'Hara, J. H., University of Louisiana, Grand View, Texas.
Forster, John G., University of Louisiana, Livingston, Sumter county.

There are no irregular practitioners in the county.

C. B. Brown, of Kaiser Hill, graduate of Nashville medical college, class of 1880, and W. F. Kimbrough, of Bladen Springs, graduate of the Alabama medical college, class of 1883, passed successful examinations before the county board, and were admitted to practice.

CONECUH COUNTY MEDICAL SOCIETY.

President—J. L. Shaw, M. D., Bellville.
Secretary—Adam A. McKittrick, M. D., Evergreen.
President of the Board Censors—J. L. Shaw, M. D., Bellville.
County Health Officer—A. A. McKittrick, M. D., Evergreen.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Bradley, Eley, Jefferson medical college, 1858, Bellville.
Feagin, Aaron P., Atlanta medical college, 1860, Brooklyn.
Jay, Andrew, Jr., Alabama medical college, 1872, Evergreen.
Lee, Robert A., University of Louisiana, 1860, Evergreen.
McKittrick, Adam Alexander, Georgia medical college, 1860, Evergreen.
Shaver, W. B., German Reform medical college, Herbert.
Shaw, James L., University of Louisville, 1840, Bellville.
Talliaferro, C. T., medical department University of Virginia, 1860, Evergreen.

Membership—8.

REGULAR PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Airy, J. D., Columbus, Ohio, 1856, Evergreen.
Grissitt, William J., Alabama medical college, 1872, Sepulga.
Gross, S. Chapman, Alabama medical college, 1879, Evergreen.
McCreary, John A., University of Louisiana, 1856, Evergreen.
Robinson, Andrew J., Atlanta medical college, 1859, Brooklyn.
Murphy, R. N., Alabama medical college, 1872, Castleberry.

There are no irregular practitioners in the county.

COOSA COUNTY MEDICAL SOCIETY.

President—Joseph M. Lennard, M. D., Nixburg.
Secretary—J. J. Coker, M. D., Rockford.
President of the Board of Censors—Jos. M. Lennard, M. D., Nixburg.
County Health Officer—John J. Hunter, M. D., Rockford.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Bailey, William, certificate county board, Equality.
Coker, Jasper James, certificate county board, Rockford.
Crowson, Richard Jasper, Atlanta medical college, Weogufka.
Dollar, Henry C., Atlanta medical college, Marble Valley.
Goggans, James Peter, licensed under the old law, Nixburg.
Goggans, Phillip Peterson, University of New York, Sykes' Mills.
Hunter, John James, Alabama medical college, Rockford.
Hurdleston, James Andrew, Atlanta medical college, Sykes' Mills.
Hurdleston, William Andrew, Atlanta medical college, Sykes' Mills.
Jowers, Solomon, certificate county board, Equality.
Kelley, John Baker, Jefferson medical college, Kelleyton.
Lennard, Joseph Marshall, Jefferson medical college, Nixburg.
Mathews, John Thomas, certificate county board, Hanover.
Moon, William Henry, Alabama medical college, Goodwater.
Nelson, Jacob, certificate county board, Traveler's Rest.
Peddy, William Jeremiah, certificate county board, Rockford.
Pope, Chandler M., Jefferson medical college, Goodwater.
Simpson, John L., certificate county board, Goodwater.

Membership—18.

There are no irregular practitioners in the county.

CRENSHAW COUNTY MEDICAL SOCIETY.

President—N. B. Barnett, M. D., Argus.
Secretary—William Y. Bergamy, Rutledge.
President of the Board of Censors—Jas. E. Kendrick, M. D., Leon.
County Health Officer—Edmund H. Johnson, M. D., Rutledge.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Albritton, George Allen, Louisville medical college, New Providence.
Burgamy, William Thomas, Atlanta medical college, Rutledge.
Barnett, A. B., Atlanta medical college, Argus.
Johnson, Edmund Harris, Washington University, Baltimore, Rutledge.
Kendrick, James Evans, Alabama medical college, Leon.
May, Samuel W., College of Physicians and Surgeons, N. Y., Bullock.
Richardson, James P., medical college of South Carolina, Honoraville.
Thrower, Stephen S., certificate county board, Arcadia.

Membership—8.

REGULAR PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Harris, ——, college not given, Argus.
McCrummin, N. H., college not given, Rutledge.
Quilion, Thomas L., college not given, Honoraville.
Street, William N., college not given, Argus.

IRREGULAR PRACTITIONERS IN THE COUNTY.

Dyer, Edward L., college not given, Rutledge.
Horn, Richard, college not given, New Providence.
Moxley, D. N., college not given, New Providence.

Removed from the county—Drs. A. C. Henry, formerly of Bullock, and J. H. Pendry; Dr. Harry Vettar Lucas, formerly of Helicon, to Tallahassee, Florida.

One application for examination from an undergraduate—refused.

One certificate issued without examination.

DALLAS COUNTY MEDICAL SOCIETY.

President—Frank Tipton, M. D., Selma.
Secretary—Goldsby King, M. D., Selma.
President of the Board of Censors—R. H. Riggs, M. D., Selma.
County Health Officer—Goldsby King, M. D., Selma.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Clark, Courtney J., Jefferson medical college, 1844, Selma.
Clarke, Richard, University of Pennsylvania, 1835, Selma.
Donald, J. M., University of Louisiana, 1854, Harrall's Cross Roads.
Furniss, John Perkins, New Orleans school of medicine, 1865, Selma.
Gee, James T., Jefferson medical college, 1843, Burnsville.
Grover, James H., medical college of South Carolina, Brown's.
Hudson, Herbert Sidney, University of Maryland, 1867, Summerfield.
Jackson, Robert Dandridge, medical college of South Carolina, 1851, Summerfield.
Johnson, William Henry, University of New York, 1867, Selma.
Jones, Wade H., medical college of South Carolina, 1855, Brown's.
King, Goldsby, medical college of South Carolina, 1851, Selma.
Kendall, William Q., college of Physicians and Surgeons, Baltimore, 1880, Mush Creek.
McKinnon, John A., University of Louisiana, 1857, Selma.
Mosely, E. B., University of Louisiana, 1857, Orrville.
Moore, C. B., medical college of South Carolina, 1839, Summerfield.
Parke, Clifford Daniel, Jefferson medical college, 1850, Selma.
Paisley, Henry S., D. D. S., Selma.
Phillips, William Crawford, University of Louisiana, Selma.
Riggs, Benjamin Hogan, college of Physicians and Surgeons, Baltimore, 1859, Selma.
Riggs, E. Powell, college of Physicians and Surgeons, Baltimore, 1881, Pleasant Hill.
Tipton, Frank, University of Louisiana, 1870, Selma.
West, J. T., medical college of Virginia, Selma.
Williamson, J. H., Jefferson medical college, 1859, Richmond.
Wilson, Isham G., University of Louisiana, 1869, Martin's Station.

Membership—24.

REGULAR PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Adams, B. C., Alabama medical college, 1872, Martin's Station.
Allison, J. D., medical college of South Carolina, 1850, Carloville.
Alston, L. L., medical college of South Carolina, 1857, Orrville.
Boykin, James O., Transylvania University, 1843, Tilden.
Blevins, John R., University of Louisiana, 1857, Marion Junction.
Cochran, R. M., Virginia medical college, 1867, Martin's Station.
DuBose, F. D., medical college of South Carolina, Orrville.
Givan, Joseph P., Alabama medical callege, 1873, Liberty Hill.
Hall, J. J., University of Louisiana, 1869, Orrville.
Kyser, George W., Virginia medical college, 1865, Richmond.
Lockwood, F. O., medical college of South Carolina, 1854, Carloville.
Mills, J. B., certificate Perry county medical board, Salt-Marsh.
Stewart, W. C., certificate Perry county medical board, 1858, Soapstone.
Weisinger, John, University of Louisiana, 1876, Brown's.

IRREGULAR PRACTITIONERS IN THE COUNTY.

Graddick, J. N., Transylvania University, 1845.

Mr. Donald, son of Dr. Joseph M. Donald, of Harrall's Cross Roads, passed a successful examination, preparatory to the study of medicine, before the county board.

Removed from the county—Drs. Thomas S. Roach, formerly of Cahaba, to Autauga county; Frederick F. Gage, formerly of Selma, to Atlanta; W. M. Wilkerson, formerly of Orrville, to Montgomery.

Discontinued the practice of medicine—Drs. S. F. Coleman, and Elijah Mosely of Orrville; D. S. Smiley and J. H. Wood, of Pleasant Hill, and F. B. Vaughn, of Summerfield.

The greater number of these physicians retired from practice several years ago, but the county secretary failed to so note the fact.

ETOWAH COUNTY MEDICAL SOCIETY.

President—John P. Ralls, M. D., Gadsden.
Secretary—Milton R. Wright, M. D., Gadsden.
President of the Board of Censors—Milton R. Wright, M. D., Gadsden.
County Health Officer—Joseph Bevans, M. D., Gadsden.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Bevans, Edward Gauday, Atlanta medical college, 1880, Gadsden.
Bevans, Joseph, certificate county board, Gadsden.
Douthit, Andrew Jackson, certificate county board, Aurora.
Dozier, Marshall Elias, Atlanta medical college, Attalla.
Ewing, Whitney Thomas, University of St. Louis, 1879, Gadsden.
Garlington, William Henry, medical college of South Carolina, 1856, Walnut Grove.

Ralls, John Perkins, Georgia medical college, 1844, Gadsden.
Wright, Milton Roil, Atlanta medical college, 1873, Gadsden.
Wood, J. H., Vanderbilt University, Attalla.
Membership—9.

REGULAR PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Baker, D. W., Vanderbilt University, Gadsden.
Baskins, Walter Colquitt, Georgia Reform medical college, 1859, Greenwood.
Dowdy, A. L., Vanderbilt University, 1876, Greenwood.
Edwards, Thomas, Cincinnati medical college, 1840, Attalla.
Funderberg, W. L., Southern medical college, Walnut Grove.
Graves, A. M., Vanderbilt University, Hoke's Bluff.
Lester, James Henry, college not given, Attalla.
Liddell, J. B., Atlanta Medical college, Gadsden.
Morrow, David Thomas, medical college of South Carolina, Gadsden.
Patterson, J. J., Reform medical college, Atlanta, Gadsden.
Slaughter, Judson, certificate county board, Greenwood.
Stephens, James Marion, Vanderbilt University, 1880, Gadsden.
Teague, Francis Bowden, University of Tennessee, 1880, Oak Hill.

IRREGULAR PRACTITIONERS IN THE COUNTY.

Sandal, J. A., Reform (Eclectic) medical college, Atlanta, Ga.

Drs. Walter C. Baskins, of Greenwood, and J. J. Patterson, of Attalla, although graduates of the Reform (Eclectic) medical college, Atlanta, Ga., practice the regular system of medicine and are so recognized, the latter receiving a certificate from the county board.

Removed from the county—Drs. J. H. Nawlin, formerly of Gadsden, to Rome, Ga., and J. H. Dozier, formerly of Attalla, to Atlanta; Dr. J. H. Roberts, of Attalla, post-office not known.

Moved into the county—Dr. F. A. Liddell, a graduate of the Atlanta medical college, Aurora.

Drs. J. B. Liddell, Gadsden, graduate of the Atlanta medical college, John J. Patterson, of Attalla, graduate of the Reform (Eclectic) medical college, Atlanta, Ga., and J. H. Wood, of Attalla, graduate of the Vanderbilt University, passed successful examinations before the county board of medical examiners and admitted to practice.

Dr. W. L. Funderberg, of Walnut Grove, graduate of the medical college of South Carolina, passed an unsuccessful examination before the county board of medical examiners.

GREENE COUNTY MEDICAL SOCIETY.

President—Henry J. Sanders, M. D., Clinton.
Secretary—Shelby C. Carson, M. D., Burton's Hill.
President of the Board of Censors—Henry Y. Webb, M. D., Eutaw.
County Health Officer—Henry Y. Webb, M. D., Eutaw.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Barclay, James Paxton, University of New York, 1871, Eutaw.
Boyce, James Spann, Louisville Hospital medical college, 1882, Mount Hebron.
Brassfield, Milton Turner, University of New York, 1869, Forkland.
Byrd, Alexander Hamilton, University of New York, 1869, Forkland.
Byrd, Robert Taylor, University of New York, 1869, Boligee.
Carpenter, Jubal, Atlanta medical college, 1859, Eutaw.
Carson, Shelby Chadwick, certificate county board, 1880, Burton's Hill.
Duncan, Augustus Meek, Alabama medical college, 1874, West Greene.
Faut, Joseph Lewis, medical college of South Carolina, 1876, Forkland.
McGehee, Dabney Oswell, Alabama medical college, 1872, Knoxville.
Minor, Phillip Barbour, University of Pennsylvania, 1852, Forkland.
Morgan, Isaac DuBose, University of Pennsylvania, 1858, Eutaw.
Murphy, Samuel Silenus, Alabama medical college, 1881, Pleasant Ridge.
Pierce, Thomas William, University of Virginia, 1854, Knoxville.
Pyles, Newton Cyrus, Jefferson medical college, 1860, Clinton.
Sanders, Charles Peak, Transylvania University, 1842, Pleasant Ridge.
Sanders, Henry John, Atlanta medical college, 1856, Clinton.
Smith, John James Alexander, Atlanta medical college, 1858, Union.
Smith, Armand Pfister, Kentucky School of Medicine, 1875, Knoxville.
Snoddy, Samuel, Transylvania University, 1831, Mantua.
Snoddy, Virgil, Alabama medical college, 1873, Mantua.
Thetford, William Fletcher, University of Louisiana, 1867, Boligee.
Turpin, Thomas James, University of Louisiana, 1871, Forkland.
Watson, Charles McAlpine, University of Louisiana, 1881, Eutaw.
Webb, Henry Young, Jefferson medical college, 1846, Eutaw.
White, John McElroy, Vanderbilt University, 1876, Pleasant Ridge.
Membership—26.

REGULAR PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Parham, George Washington, certificate county board, 1881, Knoxville.

HONORARY MEMBERS.

Murphy, Adolph Sadler, New Orleans School of Medicine, 1859, Eutaw.
Watkins, Robert Emmet, Baltimore Dental college, 1862, Eutaw.

There are no irregular practitioners in the county.

Removed from the county—Dr. William A. Mobley, formerly of Pleasant Ridge, to Pickens county.

James Spann Boyce, Mount Hebron, graduate of the Louisville Hospital medical college class of 1882, passed a successful examination for the practice of medicine and granted a certificate by the county board.

Drs. Jubal Carpenter, of Eutaw, graduate of the Atlanta medical college class of 1859, and John McElroy White, of Pleasant Ridge, graduate of the Vanderbilt University, class of 1876, were granted certificates to practice medicine without examination.

HALE COUNTY MEDICAL SOCIETY.

President—Thomas R. Ward, M. D., Greensboro.
Secretary—Archibald Lawson, M. D., Greensboro.
President of the Board of Censors—F. M. Peterson, M. D., Greensboro.
County Health Officer—Elisha Young, M. D., Greensboro.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Borden, James Pennington, Southern University, 1874, Greensboro.
Duggar, Reuben Henry, University of Pennsylvania, 1858, Macon Station.
Huggins, Jacob, University of Pennsylvania, 1860, Newbern.
Inge, Richard, University of Virginia and University of New York, Greensboro.
Lawson, Archibald, Southern University, 1874, and University of New York, 1876, Greensboro.
Owen, William H., medical department University of Nashville and Vanderbilt University, 1880, Flinn's Mills.
Peterson, Francis Marion, University of New York, 1868, Greensboro.
Pickett, Joseph Martin, Alabama medical college, 1874, Sawyersville.
Shivers, Offa Lunsford, University of Louisiana, 1873, Newbern.
Turk, William L., medical department University of Nashville, Cedarville.
Ward, Edward Burton, medical department University of New York, Greensboro.
Ward, Thomas Robert, medical college of South Carolina, 1853, Greensboro.
Young, Elisha, Jefferson medical college, 1859, Greensboro.
Membership—13.

REGULAR PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Avery, William Cushman, University of Pennsylvania, 1857, Greensboro.
Anderson, Thomas J., University of Pennsylvania, Acron.
Browder, James Daniel, Jefferson medical college, 1842, Macon Station.
Gerrin, William C., University of Louisville, Acron.
Hedleston, James Lawrence, medical college of South Carolina, 1855, Stewart's Station.
Higgins, Albert William, medical college of South Carolina, 1854, Newbern.
McCrary, William, certificate county board, Halesboro.
Randolph, John, University of New York, 1877, Greensboro.

There are no irregular practitioners in the county.

Removed from the county—Dr. Z. M. P. Inge, formerly of Greensboro, to New Orleans, La.

Dr. E. B. Ward, of Greensboro, graduate of the medical department of the University of New York, passed a successful examination before the county board of medical examiners, and was admitted to practice.

There has been but one application for examination preliminary to the study of medicine. The committee appointed to conduct the examination has not yet reported.

HENRY COUNTY MEDICAL SOCIETY.

President—John P. Crawford, M. D., Hilliardsville.
Secretary—Fleming J. Moody, M. D., Abbeville.
President of the Board of Censors—J. L. Fowler, M. D., Shortersville.
County Health Officer—O. B. Brown, M. D., Lawrenceville.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Brown, O. B., Savannah medical college, 1860, Lawrenceville.
Crawford, John P., medical department University of Louisville, 1851, Hilliardsville.
Fowler, John Lindsey, medical college of South Carolina, 1851, Shortersville.
Fowler, J. T., medical college of South Carolina, 1853, Shortersville.
Lee, William Joseph, medical department University of Louisiana, and Nashville medical college, Abbeville.
Long, James Benjamin, Louisville medical college, 1882, Abbeville.
Moody, Fleming Isaac, college of Physicians and Surgeons, Baltimore, 1876, Abbeville.
Morris, Charles Thomas, Louisville medical college, 1881, Lawrenceville.
Membership—8.

REGULAR PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Bird, J. S., college not given, Otho.
Christian, H. H., college not given, Columbia.
Christian, James C., one-course student, Headland.
Hammond, G. A., one-course student, Gordon.
Mann, ———, college not given, Dothen.
Mendenhall, ———, college not given, Gordon.
Minter, John T., college not given, Columbia.
Oates, Wyatt S., college not given, Headland.
Price, J. E., one-course student, 1851, Headland.
Stovall, J. T., college not given, Columbia.
Wimberly, R. S., one-course student, ———.

IRREGULAR PRACTITIONERS IN THE COUNTY.

Granger, J. W., college not given, Gordon.

JACKSON COUNTY MEDICAL SOCIETY.

President—Barton B. Smith, M. D., Larkinsville.
Secretary—George W. Foster, M. D., Stevenson.
President of the Board of Censors—William Mason, M. D., Stevenson.
County Health Officer—James P. Rorex, M. D., Scottsboro.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Boyd, James Harvey, University of Nashville, 1860, Larkinsville.
Brewer, James M., Vanderbilt University, Paint Rock.

Cotnam, Thomas Taylor, University of Nashville, 1855, Stevenson.
Clopton, A. G., University of Nashville, Scottsboro.
Derrick, L., college not given, Woodville.
Foster, George Winfield, University of Nashville, 1882, Maynard's Cove.
Graham, Mike, certificate county board, Stevenson.
Horton, J. J., Vanderbilt University, Bass Station.
Huffar, D. W., University of Tennessee, Woodville.
Maples, W. C., University of Tennessee, Bellefonte.
Mason, William, Transylvania University, 1864, Stevenson.
McCord, David, Blackburn, University of Nashville, 1855, Scottsboro.
McCord, James H., certificate county board, Scottsboro.
Padgett, D. A., Vanderbilt University, Fackler.
Rorex, James Polk, Alabama medical college, 1875, Scottsboro.
Smith, Barton Brown, University of Nashville, Larkinsville.
Smith, W. B., certificate county board, Larkinsville.
Story, George W., University of Nashville, Santa.
Womach, Wiley C., certificate county board, Maynard' Cove.
Membership—19.

REGULAR PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Adkins, Charles W., certificate county board, Langston.
Allen, William, certificate county board, Langston.
Blackmore, W. A., Atlanta medical college, Dodsonville.
Duckett, J. A., certificate county board, Larkin's Fork.
Gattis, Henry, certificate county board, Princeton.
Grant, F. R., certificate county board, Larkin's Fork.
Lee, E. L., University of Nashville, Bridgeport.
Martin, H. L., Vanderbilt University, Woodville.
McAfee, G. P., certificate county board, Limerock.
McElvey, W. B., certificate county board, Larkinsville.
Parks, James M., certificate county board, Scottsboro.
Robertson, Thomas O., certificate county board, Hollytree.
Spiller, W. R., Vanderbilt University, Bridgeport.

There are no irregular practitioners in the county.

J. M. Dice, of Scottsboro, passed a successful examination before the county board, and was admitted to practice.

Removed from the county—Dr. J. D. Sibert, formerly of Fern Cliff, to Walcott, Greene county, Arkansas.

JEFFERSON COUNTY MEDICAL SOCIETY.

Henry N. Rosser, M. D., Birmingham.
Secretary—Albert G. Douglass, M. D., Birmingham.
President of the Board of Censors—John W. Sears, M. D., Birmingham.
County Health Officer—James B. Luckie, M. D., Birmingham.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Abernethy, Burwell Gideon, college of Physicians and Surgeons, Baltimore, Birmingham.
Brown, George Washington, Atlanta medical college, 1877, Pratt Mines.
Burgamy, Tillman Purifoy, Jefferson medical college, 1855, Birmingham.
Cochrane, Harden, Perkins, University of New York, 1874, Birmingham.
Caldwell, Henry M., college not given, Birmingham.
Cook, W. A. University of Louisiana, Birmingham.
Davis, John Daniel Sinkler, Atlanta medical college, 1879, Birmingham.
Douglass, Albert Gallatin, Vanderbilt University, 1881, Birmingham.
Dozier, John Calhoun, University of Nashville, 1858, Birmingham.
Hendley, Albert Thomas, University of New York, 1869, Birmingham.
Hughes, Bryce M., University of Louisiana, 1882, Birmingham.
Jordan, Mortimer Harvey, Miami medical college, 1868, Birmingham.
Ledbetter, Samuel Leonidas, University of Louisville, 1879, Birmingham.
Luckie, James Buchner, University of Pennsylvania, 1853, Birmingham.
Prince, Francis Marion, Jefferson medical college, Jonesboro.
Robinson, Thomas F., Vanderbilt university, 1881, Jonesboro.
Rosser, Henry N., Atlanta medical college, 1869, Birmingham.
Sykes, William Summerfield, University of Louisiana, 1877, Birmingham.
Shoemaker, Wooster Ney, Columbus (Ohio) medical college, 1878, Birmingham.
Sears, John William, University of Pennsylvania, 1850, Birmingham.
Whelan, Charles, University of Louisiana, 1866, Birmingham.
Winn, Henry Jasper, University of Pennsylvania, 1858, Birmingham.

Membership—22.

REGULAR PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Abercrombie, John Patterson, Alabama medical college, Cedar Grove.
Acton, Samuel W., Alabama medical college, Trussville.
Bevans, James Madison, certificate Madison county board, Warrior.
Brewster, Andrew Jackson, Atlanta medical college, 1880, Birmingham.
Burton, Joseph Whitworth, Nashville medical college, 1877, Milner Coal Mines.
Crown, Andrew Jackson, Atlanta medical college, 1868, Warrior.
Cross, Samuel H., Atlanta medical college, Oxmoor.
Edwards, Robert Smith, Atlanta medical college, 1871, Trussville.
Ellis, Gideon Wesley, certificate Elyton Botanical Association, Warrior.
Green, Robert Smith, Atlanta medical college, Oregon.
Foster, Ezra, certificate county board, Toadvine.
Moore, Wesley E., Atlanta medical college, 1880, Cedar Grove.
Mathews, Robert Julius, Georgia medical college, 1876, Warrior.
McLendon, J. W., college not given, Irondale.
Posey, William F., Alabama medical college, Warrior.
Ragsdale, Milton, Alabama medical college, McCalla.

Roberts, Martin, certificate county board, Haygood's Cross Roads.
Van, James Bird, University of Louisiana, Ruhoma.

Drs. Samuel W. Acton, of Trussville, and Joseph W. Burton, of Birmingham, were dropped from the roll for non-payment of dues and absence from the society for six consecutive months.

Drs. Samuel H. Cross, of Oxmoor, and J. C. Jones, of Birmingham, resigned membership to engage in "contract practice."

Removed from the county—Drs. Joseph L. Burns, of Pratt Mines, and Francis P. Lewis, post-offices unknown.

Dr. Bryce M. Hughes, of Birmingham, graduate of the University of Louisiana, class of 1882, passed a successful examination before the county board, and was permitted to practice the regular system of medicine.

Drs. J. F. Duncan and George H. Edwards, of Kentucky; W. J. Miller, of Tennessee, and T. L. Calhoun, of South Carolina, made application for examination before the county board, and were rejected.

Dr. A. L. Monroe was examined in anatomy, physiology, chemistry, and the mechanism of labor, and granted a certificate by the county board to practice homeopathy.

Benjamin F. Jones, W. E. Davis and John G. Gillespie passed successful examinations before the county board, preliminary to the study of medicine.

There are no irregular practitioners in the county.

Died—Dr. Arthur R. Jones, Miami medical college, Jonesboro.

LAWRENCE COUNTY MEDICAL SOCIETY.

President—John M. Clark, M. D., Mount Hope.
Secretary—Buchanan S. Wert, M. D., Moulton.
President of the Board of Censors—Calvin A. Crow, M. D., Moulton.
County Health Officer—Henry F. Newsum, M. D., Courtland.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Burgett, Henry Bascom, College of Physicians and Surgeons, New York, Hillsboro.
Bowling, George Washington, University of Louisville, Landersville.
Carter, Parkerson P., certificate county board, 1878, Brickville.
Clark, John M., University of Louisville, Mount Hope.
Crow, Calvin Augustus, Jefferson medical college, Moulton.
Dinsmore, David F., University of Louisville, 1872, Landersville.
Hodges, John P., University of Nashville, 1872, Oakville.
Houston, John S., Vanderbilt University, Courtland.
Houston, Leonidas W., University of Nashville, Courtland.
Kumpe, George Ernest, University of Pennsylvania, Leighton.
Ligon, Charles W. B., University of Louisville, Moulton.
Martin, John R., University of Nashville, Concord.
Mastison, Byron O., Indiana medical college, 1869, Avoca.
Mastison, John T., Philadelphia University of Medicine and Surgery, Moulton.

McMahon, Fortunatus S., University of Pennsylvania, 1857, Forkland.
McMahon, William J., N. O. School of Medicine, 1851, Courtland.
Newsum, Henry F., Memphis medical college, Courtland.
Porter, Reese B., University of Nashville, Town Creek.
Ponder, Abraham V., American medical college, Mount Hope.
Simms, Edgar T., Philadelphia University of Medicine and Surgery, Hillsboro.
Wert, Buchanan S., University of Louisville, 1878, Moulton.
Membership—21.

REGULAR PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Ashford, E. C., University of Louisiana, Courtland.
Dinsmore, John W., Vanderbilt University, 1881, Town Creek.
Edwards, James R., college not given, Courtland.
Edwards, John W., University of Louisville, 1869, Town Creek.
Irwin, William B., certificate county board, Hillsboro.
King, Benjamin R., University of Pennsylvania, Leighton.
Jones, Thomas N., University of Louisville.
Robinson, John A. P., St. Louis medical college, Leighton.
Shegog, George, King's college, Dublin, Ireland, 1846, Leighton.
Stephenson, H. W., Alabama medical college, Avoca.

Removed from the county—Joseph M. Kumpe, of Leighton, to Montana
There are no irregular practitioners in the county.
Died—Dr. Frank W. Sykes, January 6, 1883, at Decatur, Ala.

LEE COUNTY MEDICAL SOCIETY.

President—Aurelius G. Emory, M. D., Opelika.
Secretary—Levin W. Shepherd, M. D., Opelika.
President of the Board of Censors—Jno. B. Barnett, M. D., Opelika.
County Health Officer—Amos W. McCoy, M. D., Opelika.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Barnett, John Blalock, University of New York, 1854, Opelika.
Bedell, John B., University of Tennessee, Opelika.
Bennett, Abijah Benjamin, College of Physicians and Surgeons, Baltimore, Opelika.
Bloodworth, Wiley Washington, Jefferson medical college, 1854, Loachapoka.
Drake, John Hodges, Atlanta medical college, 1867, Auburn.
Emory, Aurelius Grigsby, Medical Department University of Louisiana, 1862, Opelika.
Floyd, James William Daniel, University of Pennsylvania, 1820, Salem.
Griffin, William Henry Harrison, medical college of South Carolina, 1835, Opelika.
Johnston, William Henry, medical college of South Carolina, Loachapoka.
Love, James Madison, medical college of South Carolina, Beulah.

McCoy, Amos W., Georgia medical college and medical department University of New York, Opelika.
Rowe, Andrew Thomas, Georgia medical college, Auburn.
Shepherd, Levin Wilson, University of New York, 1859, Opelika.
Membership—13.

REGULAR PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Cameron, Robert Angles, Washington University, Baltimore, 1869, Browneville.
Flewellen, William Washington, University of New York, 1848, Lively.
Fuller, Isham B., certificate county board, Opelika.
Howard, Thomas Wesley, certificate Georgia medical board, Lively.
Head, William T., college not given, Salem.
Jemison, William W., Georgia medical college, Lively.
Love, William, one course of lectures, Wacoochee Valley.
McCoy, Charles B., College of Physicians and Surgeons, New York, Opelika.
Shelton, M. T., University of Nashville, Salem.

IRREGULAR PRACTITIONERS IN THE COUNTY.

Lamar, William H., college not given, Auburn.
Milton, Basil Manly, college not given, Lively.
Williams, J. W. R., (Eclectic) college not given, Opelika.

Died—Dr. Henry Glover Henderson, of Opelika, graduate of Jefferson medical college, class of 1870, of peritonitis, March 11th, 1883.

LIMESTONE COUNTY MEDICAL SOCIETY.

President—Theophalus Westmoreland, M. D., Athens.
Secretary—Paul C. Gaston, M. D., Athens.
President of the Board of Censors—Jonn R. Hoffman, M. D., Athens.
County Health Officer—John R. Hoffman, M. D., Athens.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Cartwright, Oscar B., Vanderbilt University, 1879, Madison.
Fish, William T., University of New York, 1856, Athens.
Gaston, Paul Cheeves, Vanderbilt University, 1878, Athens.
Hill, Henry Willis, University of New York, 1849, Mooresville.
Hoffman, John R., Jefferson medical college, 1858, Athens.
Pettus, Joseph Albert, University of Nashville, 1867, Elkmont.
Rankin, James Coffield Mitchell, University of Nashville, 1858, Belle Mina.
Westmoreland, Theophalus, University of Nashville, Athens.
Withers, Samuel Jordan, University of Pennsylvania, 1850, Mooresville.
Membership—9.

REGULAR PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Carter, J. J., non-graduate, Athens.
Collins, J. M., non-graduate, Athens.
Dupree, William J., non-graduate, Athens.
Gilmore, F. T., college not ascertained, Athens.
Houston, John, college not ascertained, Athens.
Mathews, ——, non-graduate, Mount Rozell.
McDonald, J. R., University of Nashville, Belle Mina.
Moon, Elisha D., non-graduate, Athens.
Pettus, Thomas C., non-graduate, Pettusville.
Wilkinson, M. R., University of Nashville, Westmoreland.
Williams, G. A., college not ascertained, Athens.
York, Samuel E., Louisville medical college, 1878, Athens.

IRREGULAR PRACTITIONERS IN THE COUNTY.

Dickson, Spencer C. (Botanic), Athens.
Johnston, George, (Botanic) Elk River Mills.
Moebes, Otto (Homeopathist) Athens.

Removed from the county—Dr. J. W. Westmoreland, formerly of Westmoreland, to Arkansas.

Samuel E. York, of Athens, graduate of the Louisville medical college, class of 1878, passed a successful examination before the county board, and was admitted to practice.

William Hagen, of Athens, passed a successful examination before the county board, preliminary to the study of medicine.

LOWNDES COUNTY MEDICAL SOCIETY.

President—Andrew Bowie, M. D., Benton.
Secretary—Hugh T. Caffey, M. D., Hayneville.
President of the Board of Censors—Daniel S. Hopping, M. D., Letohatchie.
County Health Officer—John A. Pritchett, M. D., Hayneville.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Ansley, John Samuel, Atlanta medical college, 1876, Mount Willing.
Bowie, Andrew, medical college of South Carolina, 1854, Benton.
Bragg, Shirley, Alabama medical college, 1876, Hayneville.
Bruner, Pinckney, Alabama medical college, 1861, Bragg's Store.
Caffey, Hugh William, medical college of South Carolina, 1855, Hayneville.
Caffey, Hugh Thomas, University of Tennessee, 1883, Hayneville.
Carr, George Washington La Fayette, University of Pennsylvania, 1855, Fort Deposit.
Cilley, Phillip Noble, University of Louisiana, 1848, Lowndesboro.
Coleman, Aurelius Daniel, Alabama medical college, 1880, Mount Willing.

Dunklin, Edward Clayton, medical college of South Carolina, 1855, Collirene.
Haygood, Daniel, medical college of South Carolina, 1859, Mount Willing.
Hardy, William Robinson, Alabama medical college, 1861, Benton.
Hopping, Daniel Stiles, Jefferson medical college, 1852, Letohatchie.
McQueen, Samuel Foxworth, Jefferson medical college, 1858, Fort Deposit.
Mushat, John Patrick, medical college of South Carolina, 1855, Hayneville.
Peake, John Samuel, medical college of South Carolina, 1854, Farmersville.
Pierce, Dunklin, University of Louisiana, 1858, Benton.
Pritchett, John Albert, University of Virginia, 1870, Hayneville.
Reese, Charles Edwin, Jefferson medical college, 1855, Lowndesboro.
Russell, John, certificate county board, Sandy Ridge.
Sanderson, Edmund Lindsay, Jefferson medical college, 1857, Letohatchie.
Watkins, Benjamin Franklin, University of Pennsylvania, 1852, Bragg's Store.
Winnemore, Samuel Eggleston, University of New York, 1856, Benton.
Membership—23.

REGULAR PHYSICIANS, NOT MEMBERS OF THE SOCIETY.

Buford, William Larkin, certificate of county board, Mount Willing.
Dilburn, Samuel George, Alabama medical college, 1875, Bragg's Store.
McRee, Abraham Cruser, University of Pennsylvania, 1850, Lowndesboro.
Moss, William Josiah, University of Louisville, 1880, Bragg's Store.
Owen, Paschal Harrison, University of New York, 1859, Morganville.
Stephen, James J., Georgia medical college, 1859, Sandy Ridge.

Hugh Thomas Caffey, M. D., of Hayneville, graduate of the medical department University of Tennessee, class of 1883; William Josiah Moss, M. D., of Bragg's Store, graduate of the University of Louisville, class of 1880; passed successful examinations before the county board, and were admitted to practice.

Moved into the county—Dr. Samuel G. Dilburn, formerly of Snow Hill, Wilcox county.

MACON COUNTY MEDICAL SOCIETY.

President—Benjamin F. Johnston, M. D., Notasulga.
Secretary—Howard A. Alexander, M. D., Tuskegee.
President of the Board of Censors—Wesley F. Hodnett, M. D., Tuskegee.
County Health Officer—Wesley F. Hodnett, M. D., Tuskegee.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Alexander, Howard Augustus, Kentucky school of Medicine, Tuskegee.
Boyd, Charles LeRoy, medical college of South Carolina, LaPlace.
Boyd, James W., medical college of South Carolina, Shorter's.
Brunson, Thaddeus W., University of Pennsylvania, Society Hill.

REGULAR PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Carter, J. J., non-graduate, Athens.
Collins, J. M., non-graduate, Athens.
Dupree, William J., non-graduate, Athens.
Gilmore, F. T., college not ascertained, Athens.
Houston, John, college not ascertained, Athens.
Mathews, ——, non-graduate, Mount Rozell.
McDonald, J. R., University of Nashville, Belle Mina.
Moon, Elisha D., non-graduate, Athens.
Pettus, Thomas C., non-graduate, Pettusville.
Wilkinson, M. R., University of Nashville, Westmoreland.
Williams, G. A., college not ascertained, Athens.
York, Samuel E., Louisville medical college, 1878, Athens.

IRREGULAR PRACTITIONERS IN THE COUNTY.

Dickson, Spencer C. (Botanic), Athens.
Johnston, George, (Botanic) Elk River Mills.
Moebes, Otto (Homeopathist) Athens.

Removed from the county—Dr. J. W. Westmoreland, formerly of Westmoreland, to Arkansas.

Samuel E. York, of Athens, graduate of the Louisville medical college, class of 1878, passed a successful examination before the county board, and was admitted to practice.

William Hagen, of Athens, passed a successful examination before the county board, preliminary to the study of medicine.

LOWNDES COUNTY MEDICAL SOCIETY.

President—Andrew Bowie, M. D., Benton.
Secretary—Hugh T. Caffey, M. D., Hayneville.
President of the Board of Censors—Daniel S. Hopping, M. D., Letohatchie.
County Health Officer—John A. Pritchett, M. D., Hayneville.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Ansley, John Samuel, Atlanta medical college, 1876, Mount Willing.
Bowie, Andrew, medical college of South Carolina, 1854, Benton.
Bragg, Shirley, Alabama medical college, 1876, Hayneville.
Bruner, Pinckney, Alabama medical college, 1861, Bragg's Store.
Caffey, Hugh William, medical college of South Carolina, 1855, Hayneville.
Caffey, Hugh Thomas, University of Tennessee, 1883, Hayneville.
Carr, George Washington La Fayette, University of Pennsylvania, 1855, Fort Deposit.
Cilley, Phillip Noble, University of Louisiana, 1848, Lowndesboro.
Coleman, Aurelius Daniel, Alabama medical college, 1880, Mount Willing.

Dunklin, Edward Clayton, medical college of South Carolina, 1855, Collirene.
Haygood, Daniel, medical college of South Carolina, 1859, Mount Willing.
Hardy, William Robinson, Alabama medical college, 1861, Benton.
Hopping, Daniel Stiles, Jefferson medical college, 1852, Letohatchie.
McQueen, Samuel Foxworth, Jefferson medical college, 1858, Fort Deposit.
Mushat, John Patrick, medical college of South Carolina, 1855, Hayneville.
Peake, John Samuel, medical college of South Carolina, 1854, Farmersville.
Pierce, Dunklin, University of Louisiana, 1858, Benton.
Pritchett, John Albert, University of Virginia, 1870, Hayneville.
Reese, Charles Edwin, Jefferson medical college, 1855, Lowndesboro.
Russell, John, certificate county board, Sandy Ridge.
Sanderson, Edmund Lindsay, Jefferson medical college, 1857, Letohatchie.
Watkins, Benjamin Franklin, University of Pennsylvania, 1852, Bragg's Store.
Winnemore, Samuel Eggleston, University of New York, 1856, Benton.
Membership—23.

REGULAR PHYSICIANS, NOT MEMBERS OF THE SOCIETY.

Buford, William Larkin, certificate of county board, Mount Willing.
Dilburn, Samuel George, Alabama medical college, 1875, Bragg's Store.
McRee, Abraham Cruser, University of Pennsylvania, 1850, Lowndesboro.
Moss, William Josiah, University of Louisville, 1880, Bragg's Store.
Owen, Paschal Harrison, University of New York, 1859, Morganville.
Stephen, James J., Georgia medical college, 1859, Sandy Ridge.

Hugh Thomas Caffey, M. D., of Hayneville, graduate of the medical department University of Tennessee, class of 1883; William Josiah Moss, M. D., of Bragg's Store, graduate of the University of Louisville, class of 1880; passed successful examinations before the county board, and were admitted to practice.

Moved into the county—Dr. Samuel G. Dilburn, formerly of Snow Hill, Wilcox county.

MACON COUNTY MEDICAL SOCIETY.

President—Benjamin F. Johnston, M. D., Notasulga.
Secretary—Howard A. Alexander, M. D., Tuskegee.
President of the Board of Censors—Wesley F. Hodnett, M. D., Tuskegee.
County Health Officer—Wesley F. Hodnett, M. D., Tuskegee.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Alexander, Howard Augustus, Kentucky school of Medicine, Tuskegee.
Boyd, Charles LeRoy, medical college of South Carolina, LaPlace.
Boyd, James W., medical college of South Carolina, Shorter's.
Brunson, Thaddeus W., University of Pennsylvania, Society Hill.

Ellison, James E., University of Pennsylvania, Creek Stand.
Gautier, William Jones, University of Pennsylvania, 1850, Tuskegee.
Hodnett, Wesley Forbush, Transylvania University, 1836, Shorter's.
Johnson, Benjamin Franklin, medical college of South Carolina, Notasulga.
Judkins, George Bernard, Jefferson medical college, 1859, Shorter's.
Letcher, Francis Marion, University of Louisiana, Shorter's.
Lightfoot, John S., Nashville medical college, Shorter's.
Griggs, John Gardner, University of Pennsylvania, Tuskegee.
Membership—12.

REGULAR PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Williams, Frederick M., medical college of South Carolina, LaPlace.

IRREGULAR PRACTITIONERS IN THE COUNTY.

Reynolds, W. A., certificate county board, Warrior Stand.
Wagnon, J. F., certificate county board, Shorter's.

Died—Charles H. Fort, M. D., and William Hardy Crawford, M. D., Tuskegee.

MADISON COUNTY MEDICAL SOCIETY.

President—A. R. Erskine, M. D., Huntsville.
Secretary—Lewis C. Pynchon, M. D., Huntsville.
President of the Board of Censors—Milton C. Baldridge, M. D., Huntsville.
County Health Officer—Milton C. Baldridge, M. D., Huntsville.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Baldridge, Milton Columbus, Bellvue Hospital medical college, Huntsville.
Barclay, John Wyeth, Jefferson medical college, Huntsville.
Brazelton, John H., Vanderbilt University, Berkley.
Detony, Isaac F., University of Louisville, Triana.
Dement, John Jefferson, University of Pennsylvania, Huntsville.
Erskine, Albert Russel, University of Pennsylvania, Huntsville.
Fletcher, Richard M., University of Pennsylvania, Madison.
Fennel, J. W., University of Nashville, Green Grove.
Goldman, J. F., Vanderbilt University, Huntsville.
Glover, A. N., University of Nashville, Owen's Cross Roads.
Lowry, Samuel H., Bellvue Hospital medical college, Huntsville.
Macon, Joseph J., Atlanta medical college, Hays' Store.
McLain, David H., Atlanta medical college, Maysville.
Norris, George D., University of Maryland, New Market.
Pynchon, Lewis C., Jefferson medical college, Huntsville.
Membership—15.

REGULAR PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Adams, John W., Richmond medical college, Gurleyville.
Blanton, John C., University of Louisville, New Market.
Burke, James P., University of Pennsylvania, Meridianville.
Burwell, Edwin D., Kentucky medical college, Cluttsville.
Carter, John W., University of Nashville, Cluttsville.
Flint, J. C., University of Louisville, Gurleyville.
Gillespie, James C., Vanderbilt University, Madison.
Harris, A. S., University of Pennsylvania, Madison.
Hinds, Bryan W., University of Nashville, New Hope.
Jones, John A. R., University of Nashville, New Market.
Jordan, William F., Jefferson medical college, Maysville.
Lipscomb, DeKalb, certificate of county medical board, New Market.
Logan, Alexander L., University of Louisville, Whitesburg.
McDonnell, Henry, University of Louisiana, Huntsville.
Martin, Hezekiah L., ————, ————.
Petty, Robert A., Alabama medical college, Hays' Store.
Pettus, William D., University of Nashville, Hays' Store.
Rivers, W. E., certificate county board, New Hope.
Ridley, J. L., University of Nashville, Huntsville.
Robinson, C. A., Jefferson medical college, Huntsville.
Steger, F. E. H., University of Nashville, Maysville.
Scruggs, Burgess E., (colored) Central Union college, Huntsville.
Shelby, David, certificate of county medical board, Huntsville.
Shelby, A. B., certificate of county medical board, Huntsville.
Slaughter, John R., University of New York, Madison.
Sullivan, George R., Shelby medical college, Madison.
Sullivan, William F., certificate of county medical board, Owens' Cross Roads.
Taliaferro, E. T., Transylvania University, New Market.
Wall, Alfred A., University of Pennsylvania, Maysville.
Walls, J. P., University of Louisiana, Meridianville.

IRREGULAR PRACTITIONERS IN THE COUNTY.

Cochran, R. E., (Eclectic) Botanic medical college, Memphis, New Market.
Rice, Francisco, certificate county board, New Market.

Physicians admitted to practice under Form 2, Book of the Rules—A. W. Hatcher and W. G. McElroy.

Removed from the county—Dr. William C. Maples, formerly of Poplar Ridge, to Jackson county, Alabama; William T. Hensley, formerly of Triana, to Texas.

Died—Dr. Henry W. Bassett, University of Louisville, Huntsville; Dr Fleming Jordan, University of Pennsylvania, Maysville.

MARENGO COUNTY MEDICAL SOCIETY.

President—E. H. C. Bailey, M. D., Demopolis.
Secretary—H. C. Duggar, M. D., Van Dorn Station.
President of the Board of Censors—George Whitfield, M. D., Old Spring Hill.
County Health Officer—J. S. Ruffin, M. D., Demopolis.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Allen, William Howard, Louisville medical college, 1882, Sweetwater.
Bailey, Edward Howe Corrie, University of Virginia, 1848, Demopolis.
Duggar, Hobart Cobbs, Alabama medical college, 1879, Van Dorn Station.
George, James Hosea, medical college of South Carolina, 1867, Linden.
Gordon, Frederick Elliott, Alabama medical college, 1882, Linden.
Kimbrough, William Leonard, University of Louisiana, 1881, Shiloh.
McCants, Robert Bell, Southern medical college, 1882, Jefferson.
Ruffin, James Sterling, University of Pennsylvania, 1849, Demopolis.
Sledge, William Henry, Alabama medical college, 1881, Jefferson.
Whitfield, Bryan Watkins, University of Pennsylvania, 1853, Demopolis.
Whitfield, Charles Boaz, college of Physicians and Surgeons, New York, 1871, Demopolis.
Whitfield, George, University of Pennsylvania, 1858, Old Spring Hill.
Membership—12.

REGULAR PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Abernethy, Jones Cadwallader, University of Pennsylvania, 1860, Dayton.
Allen, J. A., college not given, Shiloh.
Bethea, Henry, University of Louisiana, 1861, Faunsdale.
Drummond, William F., college not given, Magnolia.
Evans, Isaiah Thomas, Jefferson medical college, 1837, Linden.
Horn, Frank Clements, Alabama medical college, 1878, Uniontown.
Jones, Richard Augustus, Jefferson medical college, 1855, Dayton.
Kelly, W. D. F., Transylvania university, 1857, Demopolis.
King, Shubal S., University of Louisville, 1847, McKinley.
Luther, John George Michael, University of Louisiana, 1860, Luther's Store.
McCants, Jason Samuel, Atlanta medical college, 1866, Jefferson.
Morgan, Henry Walter, Alabama medical college, 1873, Dayton.
Nixon, William Goodwyn, University of Pennsylvania, 1855, Nixonville.
Nixon, ———, college not given, Nixonville.
Pegram, William Edward, college not given, Dayton.
Pinkston, James Madison, college of Physicians and Surgeons, Baltimore, 1878, Faunsdale.
Reese, Henry Winston, University of Pennsylvania, 1846, Demopolis.
Slade, Henry, Alabama medical college, 1872, Magnolia.
Spotswood, Norborne Dandridge, Kemper college, St. Louis, 1844, Dayton.
Smith, Seth David, University of Louisville, 1854, Demopolis.

Strudwick, Edmond, college not given, Dayton.
Thomas, John, college not given, Dayton.
Webb, James, University of Pennsyleania, 1848, Faunsdale.
Williamson, C. A., college not given, Pickens' Store.

Removed from the county—Dr. James Monroe Quinny, to Texas.

MOBILE COUNTY MEDICAL SOCIETY.

President—Daniel E. Smith, M. D., Mobile.
Secretary—William B. Pape, M. D., Mobile.
President of the Board of Censors—George A. Ketchum, M. D., Mobile.
County Health Officer—Edmund H. Fournier, M. D., Mobile.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Anderson, William Henry, University of Pennsylvania, Mobile.
Cochran, Jerome, University of Nashville, 1861, Mobile.
Crampton, Orson L., Bellvue Hospital medical college, Mobile.
Dickson, Edward, Alabama medical college, Mobile.
Fournier, Edmund H., University of Louisiana, Mobile.
Gaines, Edmund P., University of Pennsylvania, Mobile.
Goode, Rhett, Alabama medical college, Mobile.
Heustis, James F., University of Louisiana, Mobile.
Hamilton, William T., Alabama medical college, Mobile.
Hirchfeld, Henry P., University of Pennsylvania, Mobile.
Ketchum, George A., University of Pennsylvania, Mobile.
Olliphant, Samuel R., University of Louisiana, Mobile.
Owen, Goronway, University of Pennsylvania, Mobile.
Pape, William B., Alabama medical college, Mobile.
Paton, William, Alabama medical college, Mobile.
Reese, Augustus J., University of Louisiana, Mobile.
Ross, Francis A., University of Pennsylvania, Mobile.
Sanders, William H., Jefferson medical college, Mobile.
Sawyer, William Templeman, University of Louisiana, Whistler.
Scales, Thomas S., New York College of Physicians and Surgeons, Mobile.
Sherrard, Christopher C., University of Pennsylvania, Mobile.
Smith, Daniel E., Alabama medical college, Mobile.
Thomas, J. Grey, University of Pennsylvania, Mobile.
Toxey, Caleb, University of Pennsylvania, Mobile.
Goldsborough, Charles B., University of Pennsylvania, Mobile (U. S. marine service, surgeon in charge marine hospital).

Membership—25.

REGULAR PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Beatty, William Gibbs, Alabama medical college, Whistler.
Boyd, Robert, A. (colored) Howard university, Mobile.

Edwards, William M., Alabama medical college, Mount Vernon.
Grace, J. J., Alabama medical college, Whistler.
Hall, Alexander P., University of Louisiana, Mobile.
Hamilton, Joseph C., University of Pennsylvania, Mobile.
Hicklin, William C., medical college of South Carolina, Mobile.
Kennedy, ———, college not given, Mauvilla.
Lovelady, ———, college not given, St. Elmo.
Mastin, Claudius H., University of Pennsylvania, Mobile.
Mastin, William C., University of Pennsylvania, Mobile.
McCartney, ———, Alabama medical college, Whistler.
McVoy, Diego, University of Maryland, Spring Hill.
Michael, Jacob G., University of Virginia, Citronelle.
Reynolds, Samuel K., Jefferson medical college, Mobile.
Romer, J. F. B., University of Louisiana, Spring Hill.
Romer, William B., University of Louisiana, St. Elmo.
Tompkins, John E., Vanderbilt university, Mobile.
Walker, Robert C., University of Nashville, Whistler.
Johnson, D. E., Mobile.

IRREGULAR PRACTITIONERS IN THE COUNTY.

Murrell, William J., (Homeopathist), Mobile.

REMOVED FROM THE COUNTY.

Beatty, William H.
Cravey, J. C.
Godfrey, John.

Drs. E. Dickson and William B. Pape, graduates of the Alabama medical college, were examined before the county board, and admitted to practice.

Died—Gourmand, ——— (irregular).

MONROE COUNTY MEDICAL SOCIETY.

President—W. W. McMillan, M. D., Glendale.
Secretary—J. T. Parker, M. D., Monroeville.
President of the Board of Censors—Samuel Gaillard, M. D., Claiborne.
County Health Officer—W. W. McMillan, M. D., Glendale.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Bradley, Hugh, University of Pennsylvania, River Ridge.
Burroughs, William M., medical college of South Carolina, Newton Academy.
Daily, F. S., Alabama medical college, Kempville.
Fountain, Henry T., Alabama medical college, Burnt Corn.
Gaillard, Samuel, medical college of South Carolina, Claiborne.
Gaillard, G. Waters, college not given, Claiborne.

Jenkins, J. S., medical college of South Carolina, Buena Vista.
Lindsay, James M., University of Pennsylvania, Perdue Hill.
McMillan, W. W., college not given, Glendale.
Packer, J. T., Alabama medical college, Monroeville.
Russell, J. T., Georgia Reform medical college, Monroeville.
Shoomo, J. W., Transylvania university, Mount Pleasant.
Smith, William A., Alabama medical college, Bell's Landing.
Membership—13.

REGULAR PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Draughorn, R. J., medical college of South Carolina, Claiborne.
Sewall, Frank L., Alabama medical college, Bell's Landing.
Whisenant, William, college not given, Buena Vista.

IRREGULAR PRACTITIONERS IN THE COUNTY.

Chapman, W. R., Georgia Reform medical college, Old Texas.

Removed from the county—Dr. M. E. McCall, formerly of River Ridge, to Texas.

MONTGOMERY COUNTY MEDICAL SOCIETY.

President—Samuel D. Seelye, M. D., Montgomery.
Secretary—Benjamin R. Pearson, M. D., Montgomery.
President of the Board of Censors—John B. Gaston, M. D., Montgomery.
County Health Officer—Walter C. Jackson, M. D., Montgomery.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Baldwin, William Owen, Transylvania university, Montgomery.
Blue, John Howard, Washington university, Baltimore, 1870, Montgomery.
Douglass, James, medical college of South Carolina, 1857, Montgomery.
Gaston, John Brown, University of Pennsylvania, 1855, Montgomery.
Gindrat, Abram, University of New York, 1846, Montgomery.
Jackson, Walter Clarke, University of Pennsylvania, Montgomery.
Johnston, John Foot, medical college of South Carolina, Montgomery.
Jones, Benjamin Rush, Jefferson medical college, 1836, Montgomery.
Means, Thomas Alexander, Atlanta medical college, 1857, Montgomery.
Michel, Richard Fraser, medical college of South Carolina, 1847, Montgomery.
Owen, Paschal Harrison, University of New York, 1859, Morganville.
Pearson, Benjamin R., Alabama medical college, 1881, Montgomery.
Seelye, Samuel Dibble, University of New York, 1855, Montgomery.
Weatherly, Job Sobieski, University of New York, 1849, Montgomery.
Wilkerson, Wooten Moore, University of Virginia, 1879, and University of New York, 1880, Montgomery.

Whipple, Henry Lawrence, University of New York, Montgomery.
Williams, Robert Silas, Jefferson medical college, 1848, Mount Meigs.
Wood, Milton LeGrand, Bellvue Hospital medical college, Montgomery.
Membership—18.

REGULAR PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Arnold, J. B., college not given, Pine Level.
Davis, L. W., college not given, Morganville.
Ellsberry, J. P., Virginia medical college, 1860, Oakley.
Fonville, J. B., college not given.
Harris, A. F., Jefferson medical college, Arcadia.
Hill, R. M., University of New York, 1860, Pike Road.
Howell, William H., Atlanta medical college, certificate county board, 1882, Mount Carmel.
Ligon, T. B., University of New York, 1849, Montgomery.
Mason, J. C., Bellvue Hospital medical college, Orion.
McLean, T. B., University of Louisiana, Hope Hull.
McDade, George W., New Orleans School of medicine, Mathews'.
McGehee, B. E., Louisville medical college, 1872, Pike Road.
McWhorter, A. B., college not given, Morganville.
Mullins, J. J., Georgia medical college, 1872, Ramer.
Naftel, S. J., Vanderbilt University, 1879, Strata.
Nicholson, John C., Jefferson medical college, 1855, Mount Meigs.
Patton, George R., Vanderbilt University, 1869, Montgomery.
Pinkston, Camillus Llewellyn, University of Maryland, 1868, Mount Meigs.
Rives, George, University of Pennsylvania, 1852, Snowdoun.
Robinson, Dudley, Alabama medical college, 1851, Montgomery.
Sankey, John T., college not given, Montgomery.
Sellers, Anthony Hamilton, medical college of South Carolina, Ramer.
Spear, Pleasant, medical college of South Carolina, Oakley.
Stone, Henry L., medical department University of Maryland, Baltimore, 1868, Montgomery.
Temple, Beverly, college not given, Mount Meigs.
Townsend, James Barnett, University of Nashville, Pine Level.
Watson, Van B., Kentucky School of Medicine, 1880, Strata.

IRREGULAR PRACTITIONERS IN THE COUNTY.

Byron, E. S. (Homeopathist), Montgomery.
Henry, J. Hazard (Homeopathist), Montgomery.
Landridge, J. (Homeopathist), Montgomery.

No examinations.

Moved into the county—Dr. Wooten M. Wilkerson, from Orrville, Dallas county.

Died—Dr. James Milward Williams, Montgomery, graduate of the University of Pennsylvania, class of 1853, in Elmore county.

MORGAN COUNTY MEDICAL SOCIETY.

President—Scott L. Roundtree, M. D., Hartsell.
Secretary—William G. Gill, M. D., Decatur.
President of the Board of Censors—Benjamin F. Cross, M. D., Decatur.
County Health Officer—Benjamin F. Cross, M. D., Decatur.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Barclift, William A., University of Nashville, Hartsell.
Black, William B., certificate county board, 1877, Decatur.
Cross, Benjamin Franklin, University of Louisville, 1857, Decatur.
Duncan, Henry S., University of Nashville, 1880, Trinity.
Gill, Jordan Lawson, certificate county board, 1877, Somerville.
Henry, Henry C., college not given, Hartsell.
Hunter, F. B., University of Nashville, 1881, Hartsell.
Minor, Lucian, medical college of South Carolina, 1849, Trinity.
Pickett, John S., University of Louisville, 1851, Danville.
Price, Charles Wesley, certificate county board, 1877, Somerville.
Roundtree, Scott L., Jefferson medical college, 1858, Hartsell.
Sams, Eli M., Cincinnati medical college, 1853, Falkville.
Stevenson, Edward L., certificate county board, 1877, Danville.
Stevenson, Richard L., certificate county board, 1877, Flint.
West, Johnston B., certificate county board, 1877, Cedar Plains.
Williams, Gardner Gill, University of Louisville, 1843, Decatur.
Wilson, A. R., College not given, Apple Grove.
Young, William J., University of Nashville, 1872, Decatur.

Membership—18.

REGULAR PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Binford, Peter, University of Louisiana, 1880, Somerville.
Cook, H. Wiley, certificate county board, 1882, Falkville.
Ryan, Thomas L., University of Nashville, 1881, Apple Grove.
Smith, Stanhope, University of Louisville, 1847, Lacy's Spring.
Turney, William, University of Nashville, 1865, Falkville.
Watkins, R. S., University of Nashville, 1881, Flint.

F. S. McGathney, Joseph S. Turney, William B. Maxson, and H. S. Duncan, passed successful examinations before the county board, and were admitted to practice.

Removed from the county—Drs. William B. Maxson, to Mobile, F. S. McGathney, to Newcastle, Jefferson county.

There are no irregular practitioners in the county.

PERRY COUNTY MEDICAL SOCIETY.

President—Samuel Perry, M. D., Marion.
Secretary—Elias B. Thompson, M. D., Marion.
President of the Board of Censors—John M. Langhorne, M. D., Uniontown.
County Health Officer—Francis A. Bates, M. D., Marion.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Barrow, William R., medical college of South Carolina, Marion.
Bates, Francis Asbury, University of Louisville, 1843, Marion.
Bradfield, John, medical college of South Carolina, 1845, Uniontown.
Callier, Armistead M., non-graduate, Chadwick.
Coleman, J. W., Jefferson medical college, 1847, Uniontown.
Downey, William T., non-graduate, Marion.
Hill, Thomas Carter, medical college of South Carolina, Uniontown.
Houston, J. H., University of Pennsylvania, 1848, Uniontown.
Jeffries, William B., Washington University, 1865, Perryville.
Johnston, William S., medical college of South Carolina, 1859, Hamburg.
Langhorne, John Miller, University of Pennsylvania, 1845, Uniontown.
McAllister, William Thomas, University of Virginia, 1848, Marion.
Perry, Samuel, medical college of South Carolina, 1854, Marion.
Pou, John R., medical college of South Carolina, 1854, Uniontown.
Sadler, John M., University of Louisiana, 1873, Uniontown.
Thompson, Elias Benson, University of Louisiana, 1869, Marion.
White, Thomas J., Jefferson medical college, 1873, Uniontown.
Wilkerson, Charles A., University of New York, Scott's Station.
Wilkerson, William Washington, Jefferson medical college, 1855, Marion.

Membership—19.

REGULAR PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Evans, Charles A., medical college of South Carolina, Marion.
Foster, Robert, medical college of South Carolina, Marion.
Johnston, William A., Bellvue Hospital medical college, Uniontown.
Rawles, Edmund S., Georgia medical college, Marion.
Tucker, James B., Vanderbilt University, Jerico.
Webb, Lucius DeYampert, University of New York, Scott's Station.

Removed from the county—Drs. Joseph M. Davidson, formerly of Uniontown, to Charlotte, N. C.; William Goodwyn Nixon, formerly of Uniontown, to Nixonville, Perry county; C. L. Wooley, formerly of Radfordsville, post-office not ascertained.

IRREGULAR PRACTITIONERS IN THE COUNTY.

Keynerd, A. J., system of practice unknown, Marion.

Pharmaceutists having certificates from county board—B. M. Lide, 1883,

Birmingham; William H. Long, 1883, Uniontown, and J. M. Sadler, 1883, Uniontown.

No examinations have been made, and no certificates issued.

PICKENS COUNTY MEDICAL SOCIETY.

President—J. C. H. Jones, M. D., Stone.
Secretary—Samuel H. Hill, M. D., Carrollton.
President of the Board of Censors—A. W. Agnew, M. D., Providence.
County Health Officer—S. H. Hill, M. D., Carrollton.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Agnew, Alexander W., Transylvania University, 1844, Providence.
Agnew, James A., Alabama medical college, 1874, Pickensville.
Carpenter, P. S., medical college of South Carolina, 1840, Pickensville.
Duncan, John F., Alabama medical college, 1874, Providence.
Ellis, R. A., University Louisiana, 1870, Stone.
Ezell, William V., University of Louisville, 1872, Carrollton.
Hill, Samuel Feuilleteau, medical college of South Carolina, 1852, Carrollton.
Hill, Samuel Henry, University of Louisville, 1870, Carrollton.
Hinton, W. G., Georgia medical college, 1850, Pickensville.
Jones, J. C. H., University of Nashville, 1856, Stone.
Kirk, Robert N., University of Louisville, 1854, Olney.
Moody, Joseph, Louisville medical college, 1871, Bridgeville.
Morehead, H. C., University of Nashville, 1869, Pickensville.
Paschal, J. I., certificate county board, 1880, Reform.
Phillips, J. R., certificate county board, 1878, Gordo.
Rickman, John W., certificate county board, 1878, Stafford.
Sterling, J. S., Atlanta medical college, 1861, Olney.
Turnipseed, B., certificate county board, 1880, Vienna.
Weir, F. S., Memphis Institute, 1852, Pickensville.

Membership —19.

REGULAR PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Baird, D. O., certificate county board, 1878, Coal Fire.
Brandon, R. C., certificate county board, 1880, Raleigh.
Graham, A. M., certificate county board, 1878, Memphis.
Graham, George M., certificate county board, 1881, Olney.
Gunter, P. T., Memphis Institute, 1850, Coal Fire.
Hopkins, William Foote, South Carolina medical college, 1858, Memphis.
Peebles, Jesse, college not given, Stone.
Price, Robert T., Alabama medical college, 1874, Lubbub.
Quinn, J. M., certificate county board, 1880, Stafford.
Sanders, Thomas H., college not given, Garden.
Shockley, T. W., Alabama medical college, 1880, Pleasant Grove.

Stringfellow, Terrill, Transylvania University, 1843, Pickensville.
Williams, Henry L., Jefferson medical college, Lineburgh.

There are no irregular practitioners in the county.

PIKE COUNTY MEDICAL SOCIETY.

President—William A. Crossly, M. D., Troy.
Secretary—Josephus S. Beard, M. D., Troy.
President of the Board of Censors—Pugh H. Brown, M. D., Troy.
County Health Officer—Charles W. Hilliard, M. D., Milo.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Brown, Pugh H., University of New York, 1854, Troy.
Beard, Josephus S., University of New York, 1876, Troy.
Crossly, William A., medical college of South Carolina, 1859, Troy.
Eiland, William A., Atlanta medical college, 1881, Henderson.
Ford, Edward G., certificate county board, 1878, Troy.
Hendrick, Gustavus, Jefferson medical college, 1856, Brundidge.
Hilliard, Charles W., Georgia Reform medical college, 1860, Milo.
Hill, Benjamin A., Richmond medical college, Henderson.
McLevean, Charles, medical college of South Carolina, Brundidge.
Ross, William B., Atlanta medical college, 1880, Milo.

Membership—10.

REGULAR PHYSICIANS, NOT MEMBERS OF THE SOCIETY.

Allred, John P., State board medical examiners, 1878, Troy.
Carlisle, Charles M., certificate county board, 1878, Milo.
Collier, James M., Virginia medical college, 1860, Troy.
Davis, Thomas J., certificate county board, 1878, Goshen Hill.
Dennis, L. H., Graffenburg Institute, Olustee Creek.
Hamil, Irby W., Louisville medical college, 1876, Goshen Hill.
Ivey, Barney F., certificate county board, Orion.
Martin, William A., Jefferson medical college, 1844, Linwood.
Mason, J. C., University of New York, Orion.
Russell, James T., University of New York, Troy.
Townsend, A. C., college not given, China Grove.

IRREGULAR PRACTITIONERS IN THE COUNTY.

Cutts, C. W., college and system of practice not given, China Grove.
Treadwell, ——, certificate county board, 1881, Troy.

Removed from the county—Drs. E. V. Culver, of Troy, to Georgia; F. J. Moody, of Troy, to Abbeville, Henry county, Alabama.

Died—Dr. Alfred Boyd, medical college of South Carolina, 1859, Troy.

RANDOLPH COUNTY MEDICAL SOCIETY.

President—Wilson L. Heflin, M. D., Louina.
Secretary—Powhatan G. Trent, M. D., Rock Mills.
President of the Board of Censors—P. G. Trent, M. D., Rock Mills.
County Health Officer—W. L. Heflin, M. D., Louina.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Davis Samuel J., certificate county board, Roanoke.
Gauntt, Elbert T., Atlanta medical college, Wedowee.
Hamner, Samuel N., Georgia medical callege, Wedowee.
Heflin, Wilson L., Georgia medical college, Louina.
Liles, Jasper D., Louisville medical college, Louina.
Pool, Wyatt H., Georgia medical college, Roanoke.
Thomason, Francis G., certificate county board, Lamar.
Trent, Powhatan G., Jefferson medical college, Rock Mills.
White, William E., Transylvania University, Roanoke.
Wood, Winston C., certificate county board, Arbacoochee.
Membership—10.

REGULAR PHYSICIANS NOT MEMBERS OF THE SOCIETY,

Crowder, D. G., Graffenburg Institute, Rock Mills.
Duke, A. W., Graffenburg Institute, Lamar.
Liles, M. D., non-graduate, Christiana.
McClendon, E. H., Graffenburg Institute, Rock Mills,
Taylor, C. B., Graffenburg Institute, Rock Mills.
White, L. L., non-graduate, Roanoke.

IRREGULAR PRACTITIONERS IN THE COUNTY,

Vineyard, J. L., (Botanic) Rock Mills.

Removed from the county—Drs. L. P. Hamner, to Chambers county, and Henry Walls, to Calhoun county.

Dr. Samuel J. Davis, of Roanoke, graduate of the Atlanta medical college, passed a successful examination before the county board of medical examiners, was admitted to practice, and also elected to membership.

Mr. Thomas H. Bonner passed a successful examination preliminary to the study of medicine.

There has been no deaths during the year.

SHELBY COUNTY MEDICAL SOCIETY.

President—Joseph R. Morgan, M. D., Knight.
Secretary—James H. Gunn, M. D., Calera.
President of the Board of Censors—Joseph R. Morgan, M. D., Knight.
County Health Officer—Richard W. D. Hubbard, M. D., Columbiana.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Aker, James Wilson, certificate county board, Montevallo.
Cross, William Betta, certificate county board, Helena.
DuBose, Wilds Scott, Atlanta medical college, Columbiana.
Edwards, David, Georgia medical college, Wilsonville.
Goodson, Jasper, college not ascertained, Longview.
Gunn, James Hamlin, Bellvue Hospital medical college, Calera.
Hawkins, Richard Nathaniel, Miami medical college, Calera.
Hubbard, Richard Walter Darwin, University of Louisville, Columbiana.
Johnson, Joshua Orsley, University of Louisiana, Shelby Iron Works.
McGraw, Allen Edwin, University of Louisiana, Harpersville.
Meredith, William Bell, Alabama medical college, Montevallo.
Morgan, Joseph Reid, University of Louisville, Knight.
Singleton, William Robert, certificate county board, Harpersville.
Williams, John Harford, University of Louisville, Columbiana.
Membership—14.

REGULAR PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Crow, P. P., Vanderbilt University, Montevallo.
Davis, Ralph, Georgia medical college, Montevallo.
Geddings, H. D., college not ascertained, Shelby Iron Works.
Johnson, Joseph, college not ascertained, Pelham.
Moore, W. E., Atlanta medical college, Bridgeton.
Tucker, R. M., Georgia medical college, Helena.
Weldon, F. A., Atlanta medical college, Weldon.

IRREGULAR PRACTITIONERS IN THE COUNTY.

Armstrong, W. M., (Botanic) certificate county board, Knight.
Griffin, Alpheus, (Botanic) certificate county board, Helena.

Moved into the county—Drs. R. M. Tucker, from Coketon, Jefferson county, to Helena; Henry Backus, from Selma, Dallas county, to Calera.

Removed from the county—Drs. P. P. Crow, formerly of Montevallo, to Dudley, Tuskaloosa county; James A. Lacy, formerly of Montevallo, to Wheeling, Jefferson county; J. J. Thompson, formerly of Shelby Iron Works, out of the State; post-office not known.

Post-office changes—Drs. James G. Fields, formerly of Helena, now Calera; William R. King Johnson, formerly Weldon, now Pelham.

Drs. James A. Lacy, graduate of Vanderbilt University; G. A. Weldon, graduate of the Atlanta medical college; Joseph Johnson, graduate of the Miami medical college of Ohio; and H. D. Geddings, graduate of the medical college of South Carolina, passed successful examinations before the county board, and were admitted to practice.

ST. CLAIR COUNTY MEDICAL SOCIETY.

President—Robert F. McConnell, M. D., Steel's Depot.
Secretary—W. F. Vandegrift, M. D., Branchville.
President of the Board of Censors—D. E. Cason, M. D., Ashville.
County Health Officer—James M. McLaughlin, M. D., Springville.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Ash, John W., University of Louisiana, Ashville.
Bass, John B., Washington University, Baltimore, Ashville.
Brewster, Henry H., certificate county board, Greensport.
Cason, Davis Elmore, University of Nashville, Ashville.
Crump, John W., Atlanta medical college, Steel's Depot.
Chandler, E. P., certificate county board, Cropwell.
Foster, Robert S., certificate county board, Branchville.
McConnell, Robert Franklin, Southern medical college, Greensboro, Alabama, Steel's Depot.
McClendon, Charles F., certificate county board, Springville.
McLaughlin, James M., State board medical examiners, Springville.
Vandegrift, Washington F., University of Louisiana, Branchville.

Membership—11.

REGULAR PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Crump. H. P., certificate county board, Ferryville.
Dunlap, P. G., Vanderbilt University, Broken Arrow.
Griffin, ——, college not ascertained, Wolf Creek.
Harris, James, college not ascertained, Easonville.
Inzier, J. G., Louisville medical college, New London.
Jones, George M., Jefferson medical college, Springville.
O'Hara, William H., University of Louisiana, New London.
Robinson, Joseph B., certificate county board, Easonville.

IRREGULAR PRACTITIONERS IN THE COUNTY.

Dickinson, William (Eclectic), Reform medical college, Fair View.
Gibbs, George T. (Botanic), certificate county board, Whiting.
Owen, ——, (Botanic), Polk's.

Removed from the county—Dr. Geo. Gavner, formerly of Moore's Cross Roads, to Moody's.

SUMTER COUNTY MEDICAL SOCIETY.

President—R. H. Arrington, M. D., Livingston.
Secretary—Robert D. Webb, M. D., Livingston.
President of the Board of Censors—John M. Godfrey, M. D., Sumterville.
County Health Officer—Robert D. Webb, M. D., Livingston.

Nolan, Andrew Jackson, Louisville medical college, New Site.
Ragan, Onslow, certificate county board, Alexander City.
Shepard, P. M., Graeffenburg Institute, Dadeville.
Smith, William F., Graeffenburg Institute, Reel Town.
Tucker, Adolphus O., certificate county board, Bulger's Mills.
Walker, George W., certificate county board, Alexander City.
Ward, Lucius C., certificate county board, Daviston.

There are no irregular practitioners in the county.

Drs. William F. Irvin, of New Site, graduate of the Louisville medical college; William Fletcher Pearson, of Dadeville, graduate of the Alabama medical college, class of 1882; Edward Miller Pharr, of Zana, graduate of Vanderbilt University, class of 1882, passed successful examinations before the county board and were admitted to practice.

Removed from the county—Drs. J. M. Glass and J. A. Spier, formerly of Dadeville, to West Point, Georgia; Green W. Sorrell, formerly of Alexander City, to Elmore county.

TUSKALOOSA COUNTY MEDICAL SOCIETY.

President—James Guild, Jr., M. D., Tuskaloosa.
Secretary—James Little, M. D., Tuskaloosa.
President of the Board of Censors—William A. Cochrane, M. D., Tuskaloosa.
County Health Officer—James L. Williamson, M. D., North Port.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Allen, A. S., Atlanta medical college, Cottondale.
Beatty, D. P., University of New York, Tuskaloosa.
Bryce, Peter, University of New York, Tuskaloosa.
Caffee, ———, Missouri medical college, Coaling.
Cochrane, William A., University of Pennsylvania, Tuskaloosa.
Foster, David Lawrence, Jefferson medical college, Tuskaloosa.
Guild, James, Transylvania university, Tuskaloosa.
Guild, James, Jr., Jefferson medical college, Tuskaloosa.
Harris, J. W., University of Pennsylvania, Tuskaloosa.
Hester, William, University of New York, Tuskaloosa.
Little, John, Jr., University of Louisiana, Tuskaloosa.
Little, James, Atlanta medical college, Tuskaloosa.
Lucius, R. D., Atlanta medical college, Hickman.
Marlowe, Nicholas P., Jefferson medical college, Tuskaloosa.
Neilson, Robert, Georgia medical college, North Port.
Nichols, A. B. C., Philadelphia medical college, Sylvan.
Owen, William M., Alabama medical college, Green Pond.
Parker, William T., New Orleans School of Medicine, Sylvan.
Read, John B., University of Louisiana, Tuskaloosa.
Saxton, C. R., Louisville medical college, Cottondale.

Searcy, Reuben, Transylvania University, Tuskaloosa.
Searcy, James T., University of New York, Tuskaloosa.
Trigg, A. W., Alabama medical college, North Port.
Trimmin, ———, college not ascertained, North Port.
Williams, James, Alabama medical college, North Port.
Wyman, B. Leon, University of New York, Tuskaloosa.
Membership—26.

REGULAR PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Clements, Morgan, Jefferson medical college, Tuskaloosa.
Gibson, R. F., Transylvania university, North Port.
Hayes, William J., Transylvania university, Tuskaloosa.

NON-GRADUATE PRACTITIONERS.

Caldwell, W. J., certificate county board, Carthage.
Clements, Alsey, certificate county board, Cottondale.
Crump, William, certificate county board, Marcumville.
Elrod, W. W., certificate county board, Sipsey.
Gregory, C. C., certificate county board, Hickman.
McCord, C. R., certificate county board, North Port.
Oliver, James, certificate county board, New Lexington.
Powell, B. T., certificate county board, North Port.
Thompson, J. W., certificate county board, Tuskaloosa.
Toomey, M. A., certificate county board, Clements' Station.
Vance, William, certificate county board, Vance Station.

Removed from the county—Drs. D. L. Asher, of Moore's Bridge; T. D. Monroe, of Oragonia; and William C. Cross, of Tuskaloosa, to Centre, Bibb county.

Dr. T. L. Hocut was examined by the county board, and certificate refused.

WALKER COUNTY MEDICAL SOCIETY.

President—L. C. Miller, M. D., Holly Grove.
Secretary—A. M. Stovall, M. D., Jasper.
President of the Board of Censors—James A. Goggans, M. D., Jasper.
County Health Officer—D. H. Camack, M. D., South Lowell.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Camack, D. H., certificate county board, 1872, South Lowell.
Goodwin, Joseph Anderson, Alabama medical college, 1874, Jasper.
Griffin, R. P., certificate county board, 1872, York.
Gravlee, William L., Vanderbilt university, 1882, Jasper.
Guilder, J. L., college not given, Eldridge.

Haney, Newton B., Vanderbilt university, 1882, Jasper.
Hayes, J. S., certificate county board, Guy.
Hendon, Albert L., certificate county board, 1875, Holly Grove.
Linn, J. W., Atlanta medical college, Manasco.
Manasco, John, certificate county board, Holly Grove.
Miller, L. C., Memphis medical college, 1837, Holly Grove.
Miller, V. M., Vanderbilt university, 1879, Holly Grove.
Stovall, A. M., Louisville medical college, 1880, Jasper.
Membership—13.

There are no regular physicians in the county not members of the society, and no irregular practitioners.

William Aaron and Thomas Dewees passed successful examinations preliminary to the study of medicine.

Honorary member—Dr. W. C. Rosamond, Jasper.

WILCOX COUNTY MEDICAL SOCIETY.

President—Alexander C. Matheson, M. D., Camden.
Secretary—Edward D. McDaniel, M. D., Camden.
President of the Board of Censors—Alexander C. Matheson, M. D., Camden.
County Health Officer—Alexander C. Matheson, M. D., Camden.

NAMES OF MEMBERS, WITH THEIR COLLEGES AND POST-OFFICES.

Abernethy, William Henry, college not given, Sedan.
Adams, David, Georgia medical college, 1853, Pine Apple.
Bonner, Joseph Hearst, medical college of South Carolina, 1847, Rose Bud.
Bonner, James Isaac, Alabama medical college, Rose Bud.
Haddox, William Thomas, University of Louisiana, 1858, Clifton.
Jones, Capers Capehart, Philadelphia University of Medicine and Surgery, 1870, Snow Hill.
Jones, DeVotie Dennis, University of Maryland, 1872, Snow Hill.
Jones, Joseph Harvey, Louisville medical college, 1880, Allenton.
Jones, John Paul, New Orleans School of Medicine, 1881, Camden.
Jenkins, Thomas Griffin, University of Louisiana, 1849, Camden.
Jenkins, Luckie Walker, University of Louisiana, 1849, Camden.
Lee, Thomas, medical college of South Carolina, 1857, Snow Hill.
Matheson, Alexander Church, medical college of South Carolina, 1842, Camden.
McDaniel, Edward Davies, medical college of South Carolina, 1857, Camden.
Purnell, William Thomas, Alabama medical college, 1876, Prairie Bluff.
Ramsey, David Wardlaw, University of Louisiana, 1870, Pine Apple.
Membership—16.

REGULAR PHYSICIANS NOT MEMBERS OF THE SOCIETY.

Dansby, Daniel A., certificate county board, 1880, Rehoboth.

Smith, Virgil Jasper, college not given, Rehoboth.
Gailland, Edmund S., college not given, Camden.

Retired from practice—Drs. James Arrington Southall and Robert Gordon Southall, both of Lower Peach Tree.

There are no specialists or irregular practitioners in the county.

Alphonzo B. Curtis, of Lower Peach Tree, graduate of the Alabama medical college, class of 1882; Edwin Dock Kings, of Camden, graduate of the Alabama medical college, class of 1881; Davd F. Gaston, of Boiling Spring, graduate of the University of Louisiana, class of 1882, passed successful examinations before the county board, and were admitted to practice.

Edward LeRoy McDaniel and John Beverly McDaniel, both of Camden, passed successful examinations before the county board preliminary to the study of medicine.

THE ROLL OF THE COLLEGE OF COUNSELLORS.

REVISION OF 1883.

THE GRAND SENIOR COUNSELLORS.

ANDERSON, WILLIAM HENRY, Mobile, Mobile county.....1873
BRYCE, PETER, Tuskaloosa, Tuskaloosa county.....1873
COCHRAN, JEROME, Mobile, Mobile county.....1873
DEMENT, JOHN JEFFERSON, Huntsville, Madison county.....1873
FOURNIER, EDMUND HENRY, Mobile, Mobile county.....1873
GAINES, EDMUND PENDLETON, Mobile, Mobile county.....1873
JACKSON, WALTER CLARKE, Montgomery, Montgomery county.....1873
JACKSON, ROBERT DANDRIDGE, Summerfield, Dallas county.....1873
JORDAN, MORTIMER HARVEY, Birmingham, Jefferson county.....1873
KETCHUM, GEORGE AUGUSTUS, Mobile, Mobile county.....1873
KUMPE, GEORGE ERNEST, Leighton, Madison county.....1873
MCDANIEL, EDWARD DAVIES, Camden, Wilcox county.....1873
MCKINNON, JOHN ALEXANDER, Selma, Dallas county.....1873
MCKITTRICK, ADAM ALEXANDER, Evergreen, Conecuh county.....1873
MICHEL, RICHARD FRASER, Montgomery, Montgomery county.....1873
PARKE, CLIFFORD DANIEL, Selma, Dallas county.....1873
REESE, AUGUSTUS JORDAN, Mobile, Mobile county.....1873
RIGGS, BENJAMIN HOGAN, Selma, Dallas county.....1873
ROSS, FRANCIS ARMSTRONG, Mobile, Mobile county.....1873
TOXY, CALEB, Mobile, Mobile county.....1873
WEATHERLY, JOB SOBIESKI, Montgomery, Montgomery county.....1873
WEBB, ROBERT DICKENS, Livingston, Sumter county.....1873

THE SENIOR COUNSELLORS.

ABERNETHY, WILLIAM HENRY, Sedan, Wilcox county.....1875
BAKER, PAUL DELACY, Eufaula, Barbour county.....1878
BALDRIDGE, MILTON COLUMBUS, Huntsville, Madison county.....1877
BARCLAY, JOHN WYETHE, Huntsville, Madison county.....1878
BEVANS, JOSEPH, Gadsden, Etowah county.....1878
FURNISS, JOHN PERKINS, Selma, Dallas county.....1876
GASTON, JOHN BROWN, Montgomery, Montgomery county.....1875
GODFREY, JAMES MYERS, Sumterville, Sumter county.....1874
HOGAN, SAMUEL MARDIS, Union Springs, Bullock county.....1875
HOPPING, DANIEL STILES, Letohatchie, Lowndes county.....1877
JOHNSTON, WILLIAM HENRY, Selma, Dallas county.....1875
LEE, JOHN COOPER, Blount Springs, Blount county.....1877
MEANS, THOMAS ALEXANDER, Montgomery, Montgomery county.....1878
MITCHELL, WILLIAM AUGUSTUS, Eufaula, Barbour county.....1878
PRINCE, FRANCIS MARION, Jonesboro, Jefferson county.....1877
PRITCHETT, JOHN ALBERT, Hayneville, Lowndes county.....1876
SANDERS, WILLIAM HENRY, Mobile, Mobile county.....1878
SEARS, JOHN WILLIAM, Birmingham, Jefferson county.....1877
SEELYE, SAMUEL DIBBLE, Montgomery, Montgomery county.....1875
STARR, LUCIUS ERNEST, Camden, Wilcox county.....1874
WINN, JAMES JULIUS, Clayton, Barbour county.....1878

THE JUNIOR COUNSELLORS.

BARCLAY, JAMES PAXTON, Eutaw, Greene county.....1880
BROCKWAY, DUDLEY SAMUEL, Coatopa, Sumter county.....1882
BROWN, GEORGE WASHINGTON, Pratt Mines, Jefferson county.....1880
BROWN, PUGH H., Troy, Pike county.....1880
CAFFEY, HUGH WILLIAM, Hayneville, Lowndes county.....1881
CASON, DAVIS ELMORE, Ashville, St. Clair county.....1880
CROSS, BENJAMIN FRANKLIN, Decatur, Morgan county.....1879
CROSS, WILLIAM CYPRIAN, Centreville, Bibb county.....1882
DUBOSE, WILDS SCOTT, Columbiana, Shelby county.....1881
FRANKLIN, CHARLES HIGGS, Union Springs, Bullock county.....1882
FLETCHER, RICHARD MATHEW, Madison Station, Madison county.....1881
GAINES, VIVIAN PENDLETON, Mt. Sterling, Choctaw county.....1879
GOODWIN, JOSEPH ANDERSON, Jasper, Walker county.....1882
HAWKINS, RICHARD NATHANIEL, Montevallo, Shelby county.....1882
HAYES, ROBERT HUGHES, Union Springs, Bullock county.....1880
HENDRICK, GUSTAVUS, Brundidge, Pike county.....1880
HERBERT, CURTIS BURKE, Greenville, Butler county.....1879
HEUSTIS, JAMES FOUNTAIN, Mobile, Mobile county.....1881
HILL, SAMUEL HENRY, Carrollton, Pickens county.....1882
HOFFMAN, JOHN RICHARDSON, Athens, Limestone county.....1879
JAY, ANDREW, Jr., Evergreen, Conecuh county.....1882

JONES, CAPERS CAPEHART, Snow Hill, Wilcox county.....1881
KENDRICK, JOEL CLOUD, Greenville, Butler county.....1882
KENDRICK, WILLIAM T., Greenville, Butler county.....1881
LOWERY, SAMUEL HENRY, Huntsville, Madison county.....1880
LUCKIE, JAMES BUCKNER, Birmingham, Jefferson county.....1882
MCALLISTER, WILLIAM THOMAS, Marion, Perry county.....1880
MOODY, JOSEPH, Bridgeville, Pickens county 1882
MORGAN, ISAAC DUBOSE, Eutaw, Greene county.....1880
MUSHAT, JOHN PATRICK, Hayneville, Lowndes county.....1881
PARHAM, JOHN CALHOUN, Gainesville, Sumter county.....1879
PETERSON, FRANCIS MARION, Greensboro, Hale county.....1879
PHILLIPS, WILLIAM CRAWFORD, Selma, Dallas county.....1879
PURNELL, WILLIAM THOMAS, Prairie Bluff, Wilcox county.....1879
ROBINSON, THADDEUS LINDLAY, Oxford, Calhoun county.....1880
ROBEY, JAMES POLK, Scottsboro, Jackson county.....1880
SANDERS, CHARLES PEAK, Pleasant Ridge, Greene county.....1879
SAWYER, WILLIAM T., Whistler, Mobile county.....1882
SHIVERS, OFFA LUNSFORD, Newbern, Hale county.....1882
SHOLL, EDWARD HENRY, Birmingham, Jefferson county.....1880
SLEDGE, WILLIAM HENRY, Livingston, Sumter county.....1882
SMITH, DANIEL EDGARLY, Mobile, Mobile county 1882
SMITH, SAMUEL PARISH, Prattville, Autauga county.....1881
STOVALL, ANDREW MCADAMS, Jasper, Walker county.....1882
TIPTON, FRANK, Selma, Dallas county.....1882

THE COUNSELLORS ELECT.

Bowie, Andrew, Benton, Lowndes county.
Emory, Aurelius Grigsby, Opelika, Lee county,
Goggans, James Adrian, Alexander City, Tallapoosa county.
Gordon, Frederick Elliott, Linden, Marengo county.
Holt, Simon Augustus, Eufaula, Barbour county.
Pierce, Dunklin, Benton, Lowndes county.
Watson, Charles McAlpine, Eutaw, Greene county.
Ward, Henry Bascom, Cuba, Sumter county.
Wilkerson, Wooten Moore, Montgomery, Montgomery county.

Grand Senior Counsellors.....22
Senior Counsellors.....21
Junior Counsellors 45
Counsellors Elect..... 9—97

THE ROLL OF THE CORRESPONDENTS.

REVISION OF 1883.

Bizzell, William D., M. D., Atlanta, Georgia.....1881
Coleman, Ruffin, M. D., Clarksville, Tennessee.....1879
Garnett, A. F., M. D., Hot Springs, Arkansas.....1875
Locke, Leonard D., M. D., Dallas, Texas.....1876
Lynch, John F., M. D., Baltimore, Maryland.....1874
Moses, Gratz A., M. D., St. Louis, Missouri.....1874
Phillips, N. D., M. D., Gainesville, Florida.....1876
Richardson, Nicholas D., M. D., Nashville, Tennessee.....1882
Summers, Thomas O., M. D., Nashville, Tennessee 1875

THE ROLL OF THE OFFICERS.

REVISION OF 1883.

PRESIDENT.

MORTIMER HARVEY JORDAN, M. D.....Birmingham.

VICE-PRESIDENTS.

FRANK TIPTON, M. D..... Selma.
SAMUEL M. HOGAN, M. D.....Union Springs.

SECRETARY.

THOMAS A. MEANS, M. D., (for five years).....Montgomery.

TREASURER.

WALKER C. JACKSON, M. D., (for five years).....Montgomery.

THE BOARD OF CENSORS AND COMMITTEE OF PUBLIC HEALTH.

JEROME COCHRAN, (Senior Censor) Mobile.....time ends.....1888
BENJAMIN HOGAN RIGGS, Selma..... " " 1888
JOB SOBIESKI WEATHERLY, Montgomery..... " " 1887
JOHN RICHARDSON HOFFMAN, Athens..... " " 1887

SAMUEL DIBBLE SEELYE, Montgomery	time ends		1886
WILLIAM HENRY SANDERS, Mobile	"	"	1886
JOHN JEFFERSON DEMENT, Huntsville	"	"	1885
GEORGE AUGUSTUS KETCHUM, Mobile	"	"	1885
WILLIAM HENRY JOHNSTON, Selma	"	"	1884
PETER BRYCE, Tuskaloosa	"	"	1884

ORATOR.

WILLIAM HENRY SANDERS ..... Mobile.

ALTERNATE ORATOR.

WOOTEN M. WILKERSON ..... Montgomery.

PLACE OF MEETING—SELMA.

THE SCHEDULE OF THE REGULAR REPORTERS.

SESSION OF 1884.

PAUL DELACY BAKER, M. D., Eufaula—
The Action of Veratrum Veride in Certain Neuroses not Characterized by Febrile Disturbances, and the "Modus Operandi" of that Action.

EDMUND H. FOURNIER, M. D., Mobile—
Subject left to choice.

JOHN R. HOFFMAN, M. D., Athens—
The Uses and Abuses of Statistics.

JAMES T. SEARCY, M. D., Tuskaloosa—
Sensations in Health and Disease.

SAMUEL D. SEELYE, M. D., Montgomery—
The Present Aspect of the Germ Theory.

FRANK TIPTON, M. D., Selma—
Opthalmology and Otology for the General Practitioner.

CHARLES WHELAN, M. D., Birmingham—
Some Reasons, Medical and Moral, why Artificial Abortions and Craniotomy should be banished from practice, even as a resort.

THE SCHEDULE OF SPECIAL COMMITTEES.

COMMITTEE ON COLOR-BLINDNESS:

Drs. Edward H. Sholl, of Birmingham; Robert D. Webb, of Livingston, and William H. Sanders, of Mobile.

This committee, appointed at the Mobile Session to act in conjunction with the Board of Censors in endeavoring to secure some appropriate legislation from the next General Assembly in regard to color-blindness, was, on motion of Dr. John R. Hoffman, of Athens, Limestone county, continued with instructions as given above.

COMMITTEE ON SECURING A PERMANENT HOME FOR THE ASSOCIATION:

Drs. Jerome Cochran, of Mobile; Edward H. Sholl, of Birmingham, and John J. Dement, of Huntsville.

COMMITTEE ON BADGES:

Drs. Thomas A. Means, of Montgomery; Jerome Cochran, of Mobile, and Benjamin H. Riggs, of Selma.

This committee was appointed, on motion of Dr. B. H. Riggs, of Selma, to devise some distinctive mark of merit for the several grades of Counsellors, with instructions to report at the Selma Session, 1884.

THE SCHEDULE OF THE ANNUAL SESSIONS SINCE THE REORGANIZATION IN 1868.

1868	Selma—Albert Gallatin Mabry	1868
1869	Mobile—Albert Gallatin Mabry	1869
1870	Montgomery—Richard Fraser Michel	1870
1871	Mobile—Francis Armstrong Ross	1871
1872	Huntsville—Thomas Childress Osborn	1872
1873	Tuskaloosa—George Ernest Kumpe	1873
1874	Selma—George Augustus Ketchum	1874
1875	Montgomery—Job Sobieski Weatherly	1875
1876	Mobile—John Jefferson Dement	1876
1877	Birmingham—Edward Davies McDaniel	1877
1878	Eufaula—Peter Bryce	1878
1879	Selma—Robert Dickens Webb	1879
1880	Huntsville—Edmund Pendleton Gaines	1880
1881	Mongomery—William Henry Anderson	1881
1882	Mobile—John Brown Gaston	1882
1883	Birmingham—Clifford Daniel Parke	1883

THE SCHEDULE OF THE ANNUAL ORATORS.

1869.....John Brown Gaston, Selma session.....1869
1870.....George Augustus Ketchum—Montgomery session.....1870
1871.....William Henry Anderson—Mobile session.....1871
1872.....Job Sobieski Weatherly—Huntsville session.....1872
1873.....Mortimer Harvey Jordan—Tuskaloosa.....1873
1874.....Samuel Dibble Seelye—Selma session.....1874
1875.....George Augustus Ketchum—Montgomery session....1875
1876.....Richard Fraser Michel—Mobile session.....1876
1877.....Edmund Henry Fournier—Birmingham session.....1877
1878.....Benjamin Hogan Riggs—Eufaula session.....1878
1879.....William Augustus Mitchell—Selma session.....1879
1880.....Paul DeLacy Baker—Huntsville session.....1880
1881.....Milton Columbus Baldridge—Montgomery session....1881
1882.....Peter Bryce—Mobile session.....1882
1883.....Edward Henry Sholl—Birmingham session.....1883

OBITUARY RECORD.

E. H. Allen, M. D., graduate of the medical college of South Carolina, 1849—March 23, 1883, at Oxford, Calhoun county.

Henry W. Bassett, M. D., graduate of the Louisville medical college—Huntsville.

Alfred Boyd, M. D., graduate of the medical college of South Carolina, 1859—Troy, Pike county.

Thomas M. Bragg, M. D., certificate of the county board, Greenville, Butler county—November 28, 1882, in his eighty-ninth year.

James W. Crawford, M. D., Centreville, President of the Bibb County Medical Society, President of the Board of Censors, and County Health Officer—April 11, 1883.

Charles H. Fort, M. D., and William Hardy Crawford, M. D., Tuskegee.

James M. Foster, M. D., Union Springs; James A. Hayes, M. D., Union Springs, Bullock county.

Henry Glover Henderson, M. D., graduate of the Jefferson medical college, 1870, of peritonitis—March 11, 1883.

Gourmand, ——— (irregular)—Mobile county.

John Hendree, M. D.—May 6, 1883, at Dixie, Chilton county.

Arthur R. Jones, M. D., graduate of the Miami medical college—Jonesboro, Jefferson county.

Frank W. Sykes, M. D.—January 26, 1883, at Decatur, Alabama.

FLEMING W. JORDAN, M. D., graduate of the University of Pennsylvania—Mayesville.

JAMES MILWARD WILLIAMS, M. D., Montgomery, graduate of the University of Pennsylvania, class of 1853—in Elmore county.

THE APPENDIX

OF

MEDICAL & SANITARY DISSERTATIONS & REPORTS.

THE ANNUAL ORATION.

THE WORK OF THE PROFESSION; BY EDWARD H. SHOLL, M. D., OF BIRMINGHAM,

Junior Counsellor of the Medical Association of the State of Alabama.

Mr. President, Ladies and Gentlemen:

All great truths are trite, wholesome, and where the immaterial part of our being is implicated, are eternal in their bearing, influence and duration.

As a healthy cell-life is essential to the proper formation and working of the physical organism in all its complexities, it is equally certain that some germinal truth underlies the unfolding of our mental and moral organism—adapts us to our activities, and rounds us into the harmonious development of this triple nature of ours—body, mind and soul.

Nature voices this truth alike in the gentle breeze that dallies with the wealth of her summer fields of grain that gladden the heart, and in the myriad flowers that charm the eye with their tints of beauty and load the air with their sensuous fragrance. She tells it in the chill storms of winter, with their snow and ice, and in the painting of the lily. The angry waves speak it, as with resistless power they drive the helpless vessel, with its freight of living souls, to their doom upon the rock-bound coast. The shifting pageantry of the sky, in all the grandeur of its form and sublimity of its beauty, as the setting sun tinges these cloud-forms of declining day with its gold and purple, announces it. The stars, the gentle eyes of night, the whirling spheres that roll their nightly round, yea, all the heavenly host proclaim it. All things that breathe, and live, and move in the vast

universe of God, echo it either in sounds of joy or lamentation.

This great truth, in its specific relation to man, was first announced in the garden of Eden, that cradle of all our woes, by God to Adam, "first of all our fallen race." Its monotone of sorrow, from the time the flaming sword of the cherubim guarded the tree of life, lest the man should be cursed with an immortality of sinful existence, has rung its dirge through all the ages, and shall only sound its requiem with the close of mortal life, when the last tear shall be wiped from sorrow's eye, and the last broken heart shall pulse its throb of woe.

But, with the curse came the compensation. Out of the sorrow was to be wrought all the future capability of human existence. The edict, "in the sweat of thy face shalt thou eat bread," affirmed its own possibilities, for from the toil was to come the reward. This affixes the results of our subject. The wisest of all men says, in the book of Ecclesiastes, "Whatsoever thy hand findeth to do, do it with all thy might, for there is no work, nor device, nor knowledge, nor wisdom in the grave whither thou goest."

This covers the time of its practicable accomplishment. Horace says, in his ninth Satire, "Life has given nothing to mortals without great labor." This compasses the reason why of our theme to-night, which is embodied in the word "labor." We will use it as the nucleus of our thoughts, not to gather round it "pearls at random strung," but more like the prudent house-wife looking to the general utilities, to show a string of buttons adapted to the several needs of the household, to draw some practical lessons for the requirements of our professional and other family life, and yet at the same time not to reject anything that, with the decorative art of modern days, is made to enhance the charms of beauty.

Let us be friends to-night in the true sense of its meaning, from the old Gothic participle, "loving," and thus be in such sympathy with each other for the time, as shall

blend our thoughts and the better prepare us to extract for present comfort and future meditation all that the brief time to be occupied will allow us to gather.

The "work of our profession" is the salient point of our theme, as it properly presents itself in view of the occasion that has assembled us, and as more than any other class of men our lives are interwoven with the common weal and woe of mankind, a common tie will bind us to the consideration of such matters as are germane to any life that may come in contact with that work.

The first consideration that will naturally suggest itself, is, that the man must be in full sympathy with his work; yes, even be in love with it. It must be to him as an inspiration. He must feel that he is fitted in it, and fitted for it; that it is to him the one absorbing thing that is to mould, shape, guide, direct and influence all of his life, control every thought, purpose, and ambition, as much a part of him as the blood that nourishes his body. With this relation to his calling, he stands in the direct line of certain success, according to the measure of his capacity, and will inevitably protect his best gifts, accomplishing all in his day and generation that the most exacting could require, and the most sanguine hope for. This man will brave all hazards, welcome exposure, court danger, will go alike in storm or sunshine, in cold or heat, in light or dark, rested or weary; will go in his early manhood, in the vigor of his prime, and in the decay of his powers, to the poor as well as to the rich, to the unthankful as well as to the thankful. He does not hoard his hard-earned store; he shares his too often scanty pittance with the poor and miserable; he goes hungry, that he may feed others. He brings light and hope where he goes, dispels shadows, and, in the strength of his own undying faith, that broadens and ennobles his own life, he lends its radiance to others, and makes to them life worth living. He makes the timid and faint-hearted bold and resolute to combat the ills of life—the weak and weary of body and soul to lean on him and renew their courage.

Hope, through him, comes afresh to the downcast, and life's taper, burning so dimly, kindles into a new glow and warmth. This man dies by frost and hunger, amidst arctic snows. He perishes by thirst in the sands of the torrid desert. In the thick of the battle, and in the "pestilence that wasteth away at noon-day," he yields up his life, little recking, so that duty is done.

Have you seen and known such a man? Yes, you have, and I have. They have lived, they now live, and will live, while time shall be, to illustrate all of noble virtue that can be enshrined in this cumbering clay—lofty souls, oftentimes unsung, but honored and wept over wherever honor has its meed and tears can flow.

Associated with, and growing out of this love for the work, there will be perseverance in it. Lytton says, very truly: "What men want, is not talent; it is purpose—in other words, not the power to achieve, but the will to labor. I believe that labor, judiciously and continuously applied, becomes genius."

The germ of character for practical utility, enfolded in every life, though modified by time, place, and surroundings, can only be brought out by patient working, no matter what may be the calling. Its capacities for usefulness are not developed in a day, a week, a month, a year.

Through many a year of toil, the active brain and the steady hand must carve out success. To achieve the highest good, it must be shapely and symmetrical—well poised, mentally and morally. The shape and the poise are formed by attention to detail, care in small things, the atoms of character life. Neglect or inequality of labor mars harmony, impairs usefulness. It is true that there is no road of listless idleness that leads to the results of labor. By some one, for somebody, it has been won by unwearied effort. It may not be true that "there is no obstacle to him who wills." It is true, however, that the obstacles become fewer, for it is will power that removes them, and the reward is double—first the consciousness of success, then its outgrowth.

It is said, with a very reasonable approximation to truth, that the first seven years of child life outline its future possibilities, and decide its destiny. It is, perhaps, equally true that the first seven years of our professional life will shape its after results. The reason why is apparent, and a very simple one. These years will show a man's conception of his relation to his profession, and his appreciation of his privileges and opportunities, whether his comprehension of this relation is conscientiously set before him and diligently pursued.

It is, unfortunately, sometimes the case that the young man striving for the prize set before him, toils with assiduity to secure it, and, having won it, vainly imagines that his brilliant achievement will guarantee a prosperous future, sits down in inglorious ease, thinking himself fully entitled to a respite. He takes it, dallies with the flying hours, and, in pleasure's round, or, worse still, in inane idleness, drifts on, vacating his mind of past accomplishments, sowing it with weeds, if not with thorns, that shall bring a fruitful and bitter harvest.

In recent years, I knew such an one, who, by his brilliant talent, his capabilities, his early acquirements, and his native nobility of soul, won my esteem and affection. I coveted, compassed, and hoped for opportunities for him; for he had that in him which could have blessed mankind by his breadth of mental grasp, his ingenuous susceptibility to suffering, and his devotion to his calling. But he made the wrong start. His neglected opportunities became the source of fitful, irregular work, clouded his prospects, wrecked his body, soiled his soul, embittered his life, sapped his ambition, destroyed his hopes, darkened every joy, till, with deeper plunge into the abyss of evil, he sought a wretched solace; and soon, alas! too soon, the pall of an eternal night fell alike upon body and soul.

Do you say that such cases are exceptional? Perhaps so; for but few carry the heavy and woeful burden of genius that my friend did. Yet, tell me, you who have passed the

meridian of life, is this an isolated case? Do not your own observations and experiences compass similar cases, where, if the wreck be not so sudden and complete, your man is inertly and idly drifting along, to finally encounter a similar end, or lives an object of sorrow and lamentation to others, whose hopes have clung around him, and vainly too, for what he might have been?

Responsibilities laid on these men, not prepared to meet them, they go forth day by day, unequipped, to bring shame—if conscious of shame—to themselves, and tears and mourning to others. Oh, the guilt of that man who, contemning his obligations, thrusts himself into places where, toying with the jewel of life as if it were but a worthless bauble, he flings it away as if it were a clod, not designedly, perhaps, but almost with equal guilt, in that he gave service that he knew, in his own soul, was unfaithful service.

The great dramatist says:

> "May one be pardoned, and retain the offense?
> In the corrupted currents of this world,
> Offense's gilded hand may shove by justice;
> And oft 'tis seen the wicked prize itself
> Buys out the law. But 'tis not so above:
> There is no shuffling; there the action lies
> In his true nature; and we ourselves compell'd,
> Even to the teeth and forehead of our faults,
> To give in evidence."

With the very dawning of professional life must come the idea, and it must be practically carried out, if success is to be its end, that there must be daily and constant study. But some one may think, or say: I am not a beginner; I am in the meridian of life, or have passed it. How, then, can this apply to me? It is true "that the mill will never grind with the water that is past;" but if there be one to whom this consciousness of past omission shall come, let him gird himself afresh, console himself as best he may with the reflection that "it is never too late to mend," and with the light of a new purpose, set resolutely forward, to

do in his calling what is worthy of him—what and all that he is capable of. So, profit by his mistakes, that they may become friendly beacon lights to warn him from those inhospitable shores that are thickly strewn with the sad wreck of many a noble life.

Cheer up, comrade! out of the darkness can come the light. The day star of hope beckons to every willing soul, not to delusive joys, but to realized fruitions, chastened and saddened perhaps, by recollections of a wasted past, but yet to so much of the goods of this life, as even the evening of life may bring, when it is spent in the earnest and faithful attempt to bring one's self into line with the best possibilities of his time and talent.

Each man according to his capacity may be likened in the beginning of his career to the source of a stream, greater or less in the supply of its fountain. If he rightly appreciates his work and continues in his application to it, he draws as the passing years go by from many sources of supply, widens and deepens his capacities and capabilities, and passes on, fitted by depth of thought and profundity of acquirement to bear up well the heavy burdens which he is then called on to carry, and like the broad, deep stream bears on or into the great oceans, precious ships, freighted with hopes, loves and ambitions, and through many a storm pilots to the peaceful haven the joys of many a family circle that in shallower water would have been wrecked and lost.

The law of all life is growth and decay. In a healthy physical life, according to the demands, repair will be in excess of, or at least equal to the waste. This much is absolutely essential to the perfect use of the economy, where an excess of waste means sickness or death. Now a like condition obtains in our professional life. We cannot stand still. We must go forward or we must retrograde. We make very slow, or perhaps no progress, if we are content with the observations and experiences of our own daily life. This will not do. We must enter into the results of other

men's labors, test them, weigh them, find their true value, accept or reject, and by absorption adjust them to the requirements of our own work. The man who relies on his own experience alone, generally has an experience that is of little worth, and in the hour of trial, it will be proven to be such. It will usually be arbitrary in kind, dogmatic in assumption, and presumptuous in assertion, and may very commonly assume a self appreciation just in proportion to its want of real merit. It will rush in "where angels fear to tread," and for the time may obscure the greater attainments and truer worth of one more modest in assertion, but whose standard of right dealing will in the end secure the proper adjustment of the man to his surroundings. The time of restitution comes sooner or later. I assert, without hesitation, that men in due time find their just level as well and truly as water does. The incapable man must fall back; he cannot be bolstered or propped. He cannot sustain himself. It is equally as true that the capable man will in due time find his place. He cannot be kept out of it. He will make it in spite of opposition and disadvantages of every kind, sooner or later, and according to his sphere of action will accomplish all that can be expected. It may be from locality and surroundings, that this will not signify a golden store. He may, as the majority of the physicians do, provide from a narrow income, but he will be able to do, and do faithfully and well what is required of him. He will be equal to the emergencies of his day, and will obtain the crowning reward, that every true physician covets more than he does gold itself, and that is the just esteem and appreciation of the truly worthy and noble minded of his own profession, something that gold cannot buy, nor detraction rob him of. Let us comfort ourselves in this fact, and draw a lesson of wisdom from it. We are just what we make ourselves. Want of proper adjustment may not have led to the broad success we desire, but vain repinings or a cry of want of appreciation will not answer. In the run of time, measured even by public opinion, a man passes for what he is

worth. If we have conceived otherwise, let us correct our mistakes, seek new adjustments, and endeavor to realize what the past may have failed to convince us of, that justice will be done us, and if our lives are failures and barren of results, let it be set down to our own folly, and not charged to the inappreciativeness or perversity of mankind.

The wise Dr. Johnson once said: "People fail of success in life, because of the weakness of the means they use to gain it." Another, with equal wisdom, says: "I believe God gives us more power than we ever use, and puts tools enough in our way; to every man he gives the chance of growth and improvement, but we wilfully stand idle, and fret because our lives do not suit us."

It has been said, "We sleep, but the loom of life never stops, and the pattern which was weaving when the sun went down, is weaving when it comes up to-morrow." Whatever the pattern may be in color, whether sombre with life's shadows, or bright with many joys, let us see to it, that while the fabric is weaving, it is one of strength and utility, fitted for the necessary wear and tear incident to our trying lives.

The poet, with a practical view on the outlook of life, has said in simple, yet earnest, words:

"Give me the man with an aim,
Whatever that aim may be,
Whether it's wealth, or whether it's fame,
It matters not to me.
Let him walk in the path of right
And keep his aim in sight,
And work and pray in faith always
With his eye on the glittering height.

"Give me a man who says
I will do something well,
And make the fleeting day
A story of labor tell,
Though the aim he has be small,
It is better than none at all,
With something to do the whole year through
He will not stumble or fall.

"Give me a man whose heart
Is filled with ambition's fire,
Who sets his mark in the start,
And keeps moving it higher and higher;
Better to die in the strife,
The hands with labor rife,
Than to glide with the tide in an idle dream,
And lead a purposeless life.

"Better strive and climb
And never reach the goal,
Than to drift along with time
An aimless, worthless soul;
Ay, better to climb and fall,
Or sow, though the yield may be small,
Than to throw away each golden day,
And never strive at all."

We should work in harmony with, and with a clear and truthful conception of the law of our nature, for the breaking of any law of our being, physical, mental or moral, entails a penalty from which there is no escape; and even were this life the end of us, obedience to the above mentioned laws that are inseparable from our existence, would inevitably secure us the greatest happiness here. Violation of physical law sows within us the seeds of death; it lessens our capability of active usefulness; it corrupts our pleasures; saps our resources, and unfortunately, its effects cannot cease with us. We transmit the results of this violation to our offspring, and so set at work a train of evils which may not perhaps expire, until in mercy our name and lineage are forever blotted out from mortal record.

Violation of the laws of the discreet, safe and correct working of the mind also bears with it its record of folly and weakness. Abortive schemes which carry within them necessarily the seeds of their own dissolution are conceived, brought to an untimely birth, nursed through a weakling existence, and perish, to the confusion and shame of the author, who escapes lightly in his own sense of mortification, even granting that he does not betray others into similar folly, waste of time, and perhaps ruin in its broadest sense.

From the violation of moral law there is alike no escape. Were there no future, and no Supreme Dispenser of justice, to weigh with equal balance the merit of our deeds, yet there necessarily inheres in the intricacy of our social relations, such a contact as renders it perfectly impossible that there shall be a breach of this law, without impinging on the right thought and action of others, and thus setting at work an indirect or direct force upon our surroundings, which, according to the gravity of the offense, leads to a proportionate train of evils. Reasoning from the lesser to the greater, if physical force and its results be imperishable, and it be proper to shape it aright in order to secure the best consequences, much more, in the realm of mind, it is absolutely essential that its work be directed in an equable and ascending right course, to obtain such ends as shall bless mankind. Careless, unequal, irregular and spasmodic work will not do here. The inexorable law, which demands its interest on the talent given, cannot be escaped from. Certain forces, the outgrowth of its natural capabilities, are to be set at work, the measure of endowment is to be taken, its possibilities are to be gradually matured, its probabilities are not to be lost sight of, its utilities are to be brought out by the friction of life, and the aggregate of the accomplishments of its daily toil is to be given as a tribute to its day and generation, that, as the poet says:

> "In this dull stone, so poor and bare
> Of shape or lustre, patient care
> Will find *for thee a jewel* rare,
> But first must skillful hands essay
> With jewel dust, to clear away
> The film which hides its fire from day."

In other words, the processes of attrition that are to develop the noblest attributes of our nature, are to be found only in those contacts that are in themselves pure and noble and worthy. There should be uprightness in work, that standard of rectitude being assumed, which grows out of an enlightened apprehension of the relation we sustain to that

law of our being, which is grounded upon the eternal and immutable principle of right, a principle which, though often obscured, never dies, but is the same yesterday, to-day and forever. For it men have fought and bled and died; for it through all the ages of mortal life, men shall fight and bleed and die. It may go down in blood crushed by power; its torn banner grimed by the dust and smoke of many a hard fought field, may be furled for the time in defeat, but never in disgrace. Its devotees, with sorrowing hearts, may chant its dirge in other lands, as aliens from home and country they wander in sadness, but it shall live and live on. Fire cannot burn it; water cannot drown it; torture cannot destroy it. It rises to re-assert itself, to conquer the conquerors, to develop a new and nobler life, to purify its surroundings, to vindicate its majesty, to bring out all that is good and great and pure, and at last in the great day of its own triumph to marshal its own victorious hosts, to wear forever and forever the victor's laurel and reward.

A consideration of intensely practical character is involved in the questions, for whom shall we work? and for what shall we work? For purposes of convenience, our patients may be divided into three classes. Those who cannot pay, those who do pay, and those who do not. The first class embraces the worthy poor. These, as Boerhaave says, are our best patients, "because the Lord is their paymaster." To the honor and glory of our profession be it said, the deserving poor never suffer for want of medical attention. They have as tender, devoted, untiring, unselfish care, as skill can offer and wealth secure. To-day, all over our land, in the homes of poverty, yes; even in those of squalor and wretchedness and filth, the good and the noble of our profession, the peers of the kingliest souls that ever lived, go, with unwearied zeal and affectionate solicitude, offering all of hope and comfort that gleam along a murky, miserable and woful path.

From the second class we have our livelihood, and give them in return for their means, a real recompense that

money alone cannot repay. It may not be amiss to say here that the physician is ever appreciative of gratitude, and while justice and his necessities recognize the requirements of a tangible consideration, there is a craving for those other and higher manifestations, which express themselves in the outspoken word and sympathetic grasp of the hand and affectionate look that are priceless in value, and are so esteemed by him upon whom you lean in your hour of trial.

If you wish devoted service from your physician—service that money alone cannot buy—give him your affectionate confidence and your love, and he will always respond with an unwearying service that will know no respite while occasion requires it. You cannot buy all of a man who is a man for your money alone. Do not employ him if you cannot give him your entire confidence. He cannot do his best work in an atmosphere of distrust. When he fails to have your full confidence, be merciful to him and frankly tell him so. He will thank you for it if he is an honest and conscientious man, and will only be too happy to be relieved of the double load.

As to the last class, those who do not pay, and who absorb so much of the time and toil of the physician, what can I say? What ought I to say? I dare not rend the air with the objurgations that come from the mind to the lips so readily that they can scarce be restrained. Silence is best, for even here where there is no thought or hope of reward, the consciousness of doing and doing resolutely in the face of all hope, what we know will meet no repayment in actual value, has at least some recompense, when the wearied and heartbroken mother, herself appreciative, gives to us our only solace in her sincere thanks, as through our efforts her dear ones are given back to her. We must remember that many a noble souled woman, with her offspring of better promise, is tied in bitter misery to the idle, worthless and abandoned wretch. Shall we add to the burden that daily crushes her? Shall we not rather lighten it in taking away some of the ills that bind her to a life of woe and misery?

If we err here, let us err on the side of kindness. The reward may not be a present one, but mercy has a sweet flavor, and if truly and wisely dispensed, only ennobles us by its reflex action, and amidst the jars and jangles of life cheers and charms us by many a blessing divinely sent in our round of weary toil. If it be but a man alone, we need not dally with our question so long. The answer comes more readily. Let each one answer for himself. These burdens cumber ever physician, some more, some less. I have taken pains to review my work in Gainesville from June 1st, 1865, to March 1st, 1883, to ascertain what portion of my own work during that time for which I had a right to expect pay, has been unpaid. I find it to be 17 20-100 per cent. of my entire work. My own home, being surrounded by an agricultural community, this gives perhaps an approximate idea of the losses of those who are similarly situated.

As to the matter of compensation for work, it is impossible to make an arbitrary and inflexible standard of valuation. There should, however, be some accurate and uniform guide which each man may perhaps best determine for himself, and it should be adhered to as closely as circumstances will allow. In the ordinary run of one's practice, there should be no distinction in the price of visits. The amount to be collected can best be measured at the close of services, the full bill presented, and such allowances made in the settlement, as justice and kindly consideration may demand. In this we best preserve an equilibrium, and are not liable to the charge of favoritism, while our patients will know that they are treated with uniform business rules. In old times, the physician had his honorarium, or whatever the sick might see fit to bestow. The more correct and convenient modern usage attaches a certain standard of commercial value to our services by which we are to be guided. These services should have a fair standard of valuation, and should not be depreciated. The man who courts favor by underbidding the best standard of, and gen-

erally acknowledged rates, only sets a depreciated standard of worth of his own services by which he will be very apt to be measured, and will certainly fail in the long run to obtain that which he now covets, and hopes by his unwise apprehension to secure. Our work should not be obtained by solicitation, nor by the depreciation of others. It should be the just pride of every physician to be able to say that he has not sought practice, but that it has sought him; that he never by word, look or action, directly asked for employment, but that it found him. Thus gained, it will be more apt to be retained, for the element of a perfect respect both of a man's mind and soul, must enter into that compact where there is to be a faithful allegiance. Let this be our common standard of appreciation of ourselves. If in the past any of us have erred, let us have this wise and proper conception of our obligation to our own upright manhood in the future, and determine to do this much toward securing that respect which our services deserve, and will then always command in accurate proportion to their just value. We should consider it not only our duty, but our pleasure, when our co-laborers are unjustly assailed or held responsible and made to suffer in purse or name for that which they have used their best efforts to avert, and over which they could have no more possible control than over the law of gravitation to do all that we honestly and wisely and justly can do, to set them right. It should never enter into our conception to compete with them by gibe, or sneer, or outspoken word of injustice. It is wrong, it is dishonorable. The man who does it, digs a pit to bury himself in, and instead of ultimately obtaining the reward he coveted, he lives to learn that he has failed in his aim, and that for the seed of wrong doing he has sowed, he has reaped a righteous retribution, if his soul can have an honest pang, in its own bitter remorse, and in the scorn and contempt of the just, the wise, the good.

Musonius, in his "Thoughts on Cicero," says: "That allowing the performance of an honorable action to be attended

with labor, the labor is soon over, but the honor is immortal; whereas, should even pleasure wait on the commission of what is dishonorable, the pleasure is soon gone, but the dishonor, eternal."

Our work should be done in silence. The habit of reticence should be early and continuously cultivated. No matter what the ability of a man may be, he fails to be able to attain to that perfect degree of success in his calling that he might if he is found to be indiscreet of tongue, and leaky of speech. The physician holds necessarily such intimate and sacred relations to the families under his professional care, that he for the time, and more fully so, if he is permanent in location, becomes one of them. He becomes the repository of their trials, their sorrows, their inner life, as none other, outside the walls of their own home possibly can. He should be faithful to his trust, and in anything that in the least enters into what should be sacred and concealed, he should suffer his tongue to be palsied, rather than to give to the loose winds of common gossip, that which thus magnified has often brought reproach and sorrow upon many an innocent household, and perhaps forever marred its happiness. Set it down as an axiom, my brethren, and remember it, that too much silence is infinitely preferable to too much speech, for a word of derogation once out, is like a foul bird let loose, that feathers its plumes over and gorges its maw with that which is unclean, unholy and impure.

A very wise and inspired man long ago said: "The tongue is a fire." "The tongue can no man tame." The passing centuries have wrought no change. With the water of love, we can at least keep the fire smouldering, and with the lash of a discreet judgment, can fetter its power for evil. The best results of our work are to be found in cordial and harmonious co-operation. It is by this, through the law of our present Association, that we are to work toward that high standard of professional excellence which the increase of light and knowledge in this day absolutely demand of us,

if we would keep abreast with its important issues, and be found, where our profession has always been found, in the forefront of every good word and work. Here we can not afford to be laggards. If we are such, we shall soon be left behind in the rush of the present day, and justly be counted unworthy of our high calling. All these facilities for the further development of our joint work we now have. Our compact and carefully organized machinery has within it all the capabilities and elements of success. It will not, however, work itself. Time, care, attention, thought, money, are all needed, and being had, the continuous successful working of the machinery is assured. Many of us now enrolled in its working force, are but new to its surroundings, and have indeed entered into other men's labors. Having so done, it is but right that we take on us our share of the responsibility of the burden, and by all the efforts we can use, with an enthusiasm tempered with wise discretion, bring to bear upon its future all of time and talent we can give. It is truly worthy of our best gifts, and every sentiment of pride should enter into its protection, its expansion, and its noble work, now so well and hopefully begun. Let us aim to preserve its symmetrical proportions, and to make it in the passing years, what it can and ought to be, a power for good, and only for good, a blessing to mankind.

All earthly things may bear upon them the stamp of decay. The oak that bears unmoved the storms of centuries, must at last yield to the gnawing tooth of Time, and be but a cumberer of the ground, where it was its pride and glory. The iron, the brass, the marble—yea, even the granite, of what we call the everlasting hills—shall, in the moving ages, be corroded, and vanish into the assumption of new forms. Republics and empires will rise and fall. All the vain schemes of man that compass alone the purposes of greed and ambition, shall perish; but that which contains within it even the germ of truth, has the essence of eternity enfolded there.

If it be our ceaseless endeavor to embrace all good, to

shun all folly and evil and internal sources of discontent and weakness, it does not need the ken of a prophet to assume that if through its concrete purposes it shall best glorify God by its unselfish services to its fellow men, though it may change form, it shall stand, and stand secure, through cycles of ages. It shall be a monument of enlightened wisdom, more enduring than brass itself, whose beneficent purposes, woven into the fabric of our corporate life, may outlive even it, to carry out its designs for good under new governmental forms; yet a unit in design, a unit in the accomplishment of that which brings the highest good to the greatest number.

In connection with our subject, there are still many points untouched, suggestive of serious contemplation and practical exposition; but the time which I have allotted myself has almost expired, and the conclusion will be reached by a brief consideration of the fact that our work in our peculiar sphere terminates with the activities of this life.

If matter be an eternal verity, and its apparent dissolution be but a change of form, we might justly reason from this alone, that whatsoever it be that dominates the material, is immortal also in its existence, escaping only for the time from its environments, to be again somewhere readjusted to a transmuted form that, like itself, is to have the precious dower of immortality. But here we need not be in the dark unless we wish to be, and are unwilling to enter into the domain of faith—that finest exercise of the human mind, which is above and beyond reason, and soars to the contemplation of that which alone can satisfy the desire of every thoughtful mind. It must be true that some All-Creative Power—call Him what you may, but whom I call God—breathed into man's inanimate form, that he had made "of the dust of the ground," the breath of life, and man became not only man physically, but he "became a living soul." Hence, if the God whom I worship and adore is eternal in His "being, attributes, and duration," man must be; for it is God's eternal breath that is in him, and

he can no more die than God himself can die. If, then, "we, according to His promise, look for a new heaven and a new earth," our work is surely done when this present mortal life is finished; for in that land "there shall be no more death, neither sorrow nor crying; neither shall there be any more pain, for the former things are passed away." Divested, then, of all its present clogs, we carry into that new existence this same wonderful trinity of being—body, mind and soul. Let us covet such adjustments in this life as are pure, noble, holy, god-like; then shall we carry to that infinite eternity of existence such exalted and ever-expanding endowments of body, mind and soul as shall result in the highest happiness that a purified being is capable of conceiving and enjoying.

Here—

> "The soul, not blindly, but with eyes
> That search through darkness for the day,
> Looks round the circle of the skies
> From the dim windows of the clay."—*Boker.*

There—

> "Faith shall be changed into sight, and hope into fruition."

THE THERAPEUTIC USES OF QUININE IN ALABAMA.

BY JEROME COCHRAN, M. D.,

Grand Senior Counsellor Medical Association of the State of Alabama, Senior Censor Medical Association of the State of Alabama, and State Health Officer of Alabama.

INTRODUCTION.

The title of this paper will show that it is not intended as a presentation of my own views of the therapeutic use of quinine. *Per contra*, its purpose is to collect and collate the opinions and practices in regard to this important agent of the medical profession of the State. In order to elicit the information desired, I issued, under date of the 25th of January, one thousand copies of the following circular letter:

CIRCULAR LETTER.

DEAR DOCTOR—I have been appointed by the President of the State Medical Association to prepare a Report on the Therapeutic Uses of Quinine in Alabama.

In the preparation of a report of this sort I shall have to depend in a large measure upon the aid given me by members of the medical profession.

I shall therefore be very greatly obliged to you if you will favor me with the facts and results of your experience in the uses of this remedy. For convenience of subsequent comparison I suggest the presentation of what you may have to say under the following heads:

1. The uses of quinine in malarial fevers—intermittent, remittent, hæmorrhagic, pernicious, etc.

2. The uses of quinine in other malarial maladies—such as dysenteries, neuralgias, bilious colics, etc.

3. The uses of quinine in the continued fevers, and the quasi continued fevers—such as typhoid fever, typho-malarial fever (so called), mountain fever, gastric remittent fever of children, continued malarial fever (so called), etc.

4. The uses of quinine in various zymotic diseases—such as yellow fever, dengue, septicæmia, diptheria, cerebro-spinal fever, small pox, measles, scarlet fever, etc.

5. The uses of quinine in rheumatism, pneumonia, bronchitis, pleurisy, and other phlegmasæ; and in other diseases that I have not mentioned by name.

6. The uses of quinine as an antipyretic. The physiological reactions of quinine. The toxicological effects of quinine. Quinine as an oxytocic. Quinine as a tonic and restorative. Curious idiosyncrasies in regard to quinine. Doses, intervals, and methods of administration.

7. Illustrative cases, the more numerous and the more circumstantially reported the better.

8. I would like to give as complete a catalogue as possible of papers by Alabama physicians in which the uses of quinine are discussed. To this end I beg that all who have files of medical periodicals—especially of periodicals published before the war—will look them over and furnish me the titles of such papers, names of authors, and names and dates of the periodicals in which they appeared.

It is not expected that every one will go through the whole of the programme here indicated; but it is hoped that every physician into whose hands this circular letter may fall will be able and willing, out of his own experience, to furnish some facts, or principles, or cases, in connection with the uses and abuses of quinine that will be worthy of preservation. The longest reports will be carefully considered and utilized in extenso. The shortest notes will be thankfully received, and will not be overlooked on account of their brevity. Every fact or opinion made use of will be duly credited to the author of it. My object is to give a complete resume of the opinions and usages of the doctors of Alabama in regard to the most important of all the agents of our materia medica—the most important certainly, in all southern climates, if not the most important without any sort of qualification; and I venture to hope that such a general response will be made to my appeal as will enable me to present a report that will be of permanent value.

Answers should be sent in as soon as possible—say within the next six weeks.

To this circular I received responses from forty-four (44) Alabama physicians, to all of whom I desire here to express my thanks. It will be seen that these responses vary greatly in length, and perhaps still more in the character and value of the information they contain. Some of them are very superficial and in themselves hardly of sufficient importance to warrant their publication; while others show that their authors are familiar with the most advanced speculations in regard to powers and properties of the great

anti-malarial remedy, and skillful in the practical applications of it for the cure of disease. All of them, however, are germane to the purposes of my paper; and all alike give evidence of the qualifications of the doctors engaged in the practice of medicine in Alabama. I have therefore thought it best to publish all of them without mutilation or abridgement; and to this end have arranged them in the alphabetical order of the names of the writers.

DR. J. C. ABERNETHY, OF BIRMINGHAM.

In an effort to reply to some enquiries contained in your circular letter to me in regard to the therapeutical uses of quinine, I will confine myself to facts observed around the bedside of the sick for the last twenty-three years in sections of country noted for their malarial diseases.

The greater portion of my professional life has been spent in the practice of medicine along the banks of the Alabama river, in Wilcox county. Having spent years in such poisoned atmosphere, I am certainly in a position to declare the "faith that is within me."

I have thought that quinine cured all our malarial diseases by simple excitation of the muscular fibre, and also by its antidotal powers, but chiefly by its never failing virtue of arousing the dormant action of the muscular fibre. If this theory be not correct, then I am completely at sea, and cannot in the least account for the grand and overwhelming victorious triumphs of quinine in our malarial diseases. It is necessary for me to state in the beginning my idea of the action of quinine in our fevers, as my treatment of them is based upon this theory and can be better understood. How does quinine relieve engorgement and congestion? and you see more or less of this in every malarial attack—say that it is simple engorgement of the spleen or liver. By exciting the muscular fibre and vaso-motor nerves, and driving on the stagnant blood into the general circulation, thereby restoring the equilibrium of the circulation, and then its antidotal powers coming in play at the same time, there is nothing for the emunctories to do but rid the system of any lingering poison that may be left behind in the system. Electricity, strychnia, and coffee and other excitants, act upon the muscular fibre in somewhat similar manner, but do not pervade the whole system as quinine doses and are not as persistent, and carry no antidotal powers with them. Now, this state of excitement, gotten up in the system by quinine, may be carried too far. Push the quinine in large doses and often repeated, and there comes great depression of the muscular fibre with an overwhelming sedative effect upon the nervous system. The action of the heart is held in abeyance, its rhythm and stroke are lowered, and of course the heat of the body, and in this way quinine in large doses has ascribed to it an antipyretic effect. That is one of its therapeutical features under extraordinary circumstances, but I claim that when quinine is pushed to such an extent as to

lower very decidedly the action of the heart and heat of the body, we have obtained the toxic effect of quinine, and in certain diseased conditions, for instance, puerperal septicæmia, protracted typho-malarial fevers and malarial hæmorragic, and in any diseased condition with extensive organic lesion, this antipyretic effect should be watched with considerable care. Even in profound congestion, such as is occasionally seen among our malarial fevers, I have seen quinine given to such an extent as to overpower the nervous system and cause death. In any form of our malarial fevers, if there is decided congestion, or any symptom indicating an approach to it, I administer the quinine at once, and in doses sufficient to arouse the dormant powers of the system, but I go no further. I keep the patient toned up to this point of resistance and assist the action of the quinine by other remedies or means, such as mercurial purgatives, diaphoretics, diuretics, warm pedeluvia, counter-irritation, and probably opiates, especially morphine hyperdermically.

Malarial hæmorrhagic fever prevailed to an alarming extent along the course of the Alabama river and its tributaries from the year 1866 to 1871. This hideous form of fever so impressed our physicians who saw it for the first time with its grave malarial impress, that they resorted at once to the use of very large doses of quinine. If the stomach ceased to tolerate it, it was shoveled in by the drachm, and repeated as often as possible. The pulse grew weaker and faster, the nausea unbearable and uncontrollable, the skin became intensely yellow, so much so that I could take my pocket handkerchief and wipe the discoloration from the surface and leaving the stain upon the cloth, and finally the poor suffering creature would die from exhaustion. He was almost worn out by the oft-repeated chills and fevers before the grave and ghastly symptoms presented themselves, and then to have his vital powers still more depressed by large doses of quinine it was more than the waning powers of life could endure, and for a time they all died.

But quinine is indispensable in the treatment of malarial hæmorrhagic fever. The course I pursued was somewhat after this style: Called to see a man, middle age; had been having chills and fevers for weeks, and probably months; had a severe one yesterday evening; a very high fever succeeded, with an intense icterode hue of skin; pokeberry juice urine; not secreted very rapidly, and but very little desire to void it; more than likely a most horrible nausea and retching, etc., with the bowels constipated (usually). First move on the chess board is to move the bowels, a decided mercurial purgative; combine the mercury with any other brisk purgative; when the bowels are sufficiently acted upon, the nausea ceases. Begin now with large doses of some preparation of iron, and combine with it quinine in moderate doses, say five grains every three or four hours; keep the patient quiet with morphine hyperdermically, lemonade drinks, warm foot baths, milk punch; keep the bowels open with some mild purgative; never give but the one dose of calomel spoken of above, unless imperatively required, but keep up the iron and quinine for several days; iron in as alrge doses as the stomach will bear, and quinine in doses sufficient to

arouse the system and not depress it. If the nausea can be controlled so that the medicines can be taken into the stomach, this course of treatment will save the great majority of such cases.

The objection by some physicians to the use of quinine in this peculiar condition is caused by an improper use of the drug, in too large doses, and trying to force it into a stomach that positively refuses to receive it. My experience with quinine in the continued fevers has not been very satisfactory. If I could not abort them at the beginning, they usually, or rather invariably, run a protracted course. Medicines having no curative control over them, quinine probably sustains the system and helps it to bear up under the "wear and tear" of the fever.

A great deal has recently been written about quinine as an oxytocic. I am very glad of this opportunity to express my observations on this point. If a pregnant woman has malarial fever, she, above all others, and for special reasons, should be put freely under the influence of quinine and kept so until there is no danger of a return of the paroxysm. Far better cause some little contractions of the womb, even if the quinine does it, than to suffer the fever to go on unchecked, and result ultimately in an abortion or premature labor, and probably puerperal fever. In the section of country where I now reside, if chills and fevers are allowed to go on in a pregnant woman until she goes her full time (which is not usually the case, the womb throwing off its contents before that time), she is almost certain to have a chill a few hours after labor, and leap off immediately into puerperal fever with septicæmia. Quinine stimulates the contractions of the womb, but it only does it by exciting the muscular fibre of the womb, and is not of sufficient force to expel its contents, unless there exists high fever at the time. It is certainly highly culpable to use means that we know are probably insufficient to check the woman's fever, leaving off the only certainly known remedy and let her march steadily and surely on to confinement with this fever, and afterwards more than likely puerperal fever, and finally the grave. Stop the fever and let the womb take care of itself, if you cannot quiet it with opiates.

Now, this is not an overdrawn picture. In this exceedingly malarious section, such cases present themselves frequently, and almost invariably, if they are strongly impressed with malaria at their confinement. With older medical heads, all this blow about quinine as an oxytocic, and caution in its use in a pregnant woman, amounts to nothing, only to excite the alarm that some younger medical brother may, in order to "keep up with the times," give the grand remedy the go-by, and let his patient find her last resting place in the grave. How sad! oh, how sad, the consciousness afterwards, that he held in his hand the means of her relief, but failed to apply it!

In natural labor, at full time, if the womb begins to weary, and the labor tardy, a dose or two of quinine—five or six grains each, two or three hours apart—will strengthen it by exciting it in common with the whole system, and give the woman more strength to go through with her labor. I very often combine it with ergot, unless contraindicated.

In your sixth question, I find this also: "Quinine as a Tonic and Restorative."

I have never thought that quinine of itself is a tonic; and just here I expect a large portion of my medical brethren to take up arms against me. But, nevertheless, I intend to hang to this opinion until it is proven that it is a tonic. Quinine excites the irritability of muscular fibre. It is an excitant. It produces a quickly diffused and transient increase of vital energy and strength of action of the vaso-motor nerves. It arouses in a short time their dormant life and energy, and its doses have to be increased the longer it is used, to keep up this excited condition, and if left off suddenly, after having used it for several days, the nervous system lapses back into a more depressed condition than when the medicine was first given. Not so with any other tonic.

Give a healthy man ten grains of quinine, and in an hour his face is flushed, his head feels full, his ears are annoyed with unearthly ringing and rumbling sounds, his nervous system completely unstrung and painfully excited with a feeling to pitch forward, all sleep is gone, and there is no relish for food. Is there any tonic on earth that behaves this way? Strychnine approaches it more nearly. By constant and long use, for instance, beginning its use early in the summer, and continuing it until late the following fall, it destroys the tone of the stomach, and ultimately fails to counteract the malarial impress upon the system, and leaves it (if left off suddenly) in a depressed and nervous condition. I have seen this fact verified. Tonics do not act this way. But quinine does impart strength and vigor to the system. How does it do it? By relieving the various engorgements and congestions found here and there amongst the organs, thus correcting their functions, and imparting to them, or giving them the power to assume new life and strength; the appetite returns, and food is taken; the blood receives new pabulum, and the vital powers of life are restored. But continue its use indefinitely after this stage of healthfulness is reached, and the nervous system becomes depressed, the tone of the stomach becomes more or less impaired, and it fails to counteract any malarial impression.

DR. J. W. ACKER, OF MONTEVALLO.

My experience with quinine is about as follows: Quinine has always done well with me in malarial affections, where there are no complications of a typhoid character. In intermittents of any kind, it gives perfect satisfaction. As a tonic and restorative, it is the best I have found. I know nothing of its antipyretic effects. As an antiperiodic, it excels all other remedies I have tried. I never give quinine in fevers where the typhoid symptoms predominate.

DR. T. P. BURGAMY, OF BIRMINGHAM.

Having had a large field of practice for twenty years in the black belt of Alabama, and five years in this city, I will furnish you with a few facts and

results of my experience in the use of quinine, and will be as brief as possible.

My experience with this drug has not been so satisfactory as with some of my brother practitioners, who have extolled it to the skies as an abortive in typhoid fever, pneumonia, and every other disease the human system is heir to. I will take up the several diseases in the manner you suggest.

1st. With quinine I have never found any difficulty in controlling intermittent and remittent fevers, by giving ordinary doses—say from five to ten grains at a dose, governed generally by circumstances. In the treatment of hemorrhagic and pernicious fevers, I consider this remedy the sheet anchor. My experience has been to give heroic doses—say from twenty to thirty grains, given every two or three hours, until the system is thoroughly brought under its influence; then the quantity to be reduced, when recovery is generally pretty certain.

2d. I have frequently used quinine in dysentery in malarious districts, where I thought there was malarial complication, but not with satisfactory results. Bismuth, ipecac, and opium had to be brought into use, with brandy occasionally, before a cure could be effected. I have been successful with it in neuralgia, combined with strychnine and iron; occasionally have had good results from it, given separately. Have never succeeded with it in bilious colic, unless combined with other remedies.

3d. I have abundantly tried quinine in continued gastric or typhoid fever, but with unfavorable results. The disease was certainly aggravated and prolonged under its influence.

4th. In the zymotic diseases you mention (save small-pox and yellow fever), I have had considerable experience, and have had satisfactory results with quinine, especially in scarlet fever and diphtheria; and to render it more potent in these two dreaded diseases, I alternate with iron and chlorate of potash.

5th. In the different phlegmasiæ, I have used quinine abundantly, in every conceivable form, but never with satisfactory results.

6th. My experience with this remedy as an antipyretic has not been entirely satisfactory. I have witnessed the toxicological effects frequently. One case was that of a child ten years of age, who was totally blind for several months. This was a patient of a neighbor physician. I was called to treat the case afterwards, but could never ascertain the quantity that was given. Stille & Maisch, in their dispensatory, make mention of a child who died from taking eight grains of this salt, within two hours. I have frequently seen erythematous or papular eruptions of the skin appear from the use of this drug. Had one case of impotence produced from its effect. The patient affirmed that he became impotent while under its influence, and recovered by discontinuing its use. Had one patient who never could take quinine, in consequence of its cathartic effect. Had two patients who claimed to have had irritation of the urinary passages, and one hæmaturia, from its use, and recovered by discontinuing its use.

I have no confidence in this salt as an oxytocic. Have noticed in my journals where physicians claimed to have succeeded with it, but my expe-

rience has been the opposite. My opinion is that it never has acted as an oxytocic, except through sympathy with the urinary passages. As Stille & Maisch, in their valuable dispensatory, say, quinine is almost wholly excreted with the urine, and sometimes occasions irritation of the urinary passages, causing in different cases micturition, retention of urine, and even hæmaturia. These facts tend to explain the occasional occurrence of abortion or premature labor in females taking very large doses of quinine for the cure of intermittent fever. I have given quinine extensively in small doses, as a tonic, say two or three grains three times daily, and find nothing to equal it in building up the system after an attack of typhoid fever. It is a dangerous plan to persist too long in its use, as the patient acquires the quinine habit like the opium eater, who fancies that death would be the result should he discontinue the habit. I have witnessed this result in two or three cases. One, who was an officer during the war, had been seriously wounded, and was at home on furlough. He was rapidly recovering, and had been under the influence of quinine about one month. About two days after his stimulus gave out, he sent for me. There was general prostration of the nervous system—in fact, all the symptoms generally attending an opium eater when his stimulus gives out. I gave him a supply of quinine; after which his system relaxed, and there was no more trouble.

DR. ALFRED S. ALLEN, OF COTTONDALE.

In complying with your request, in a circular dated January 25th, I will give you some brief sketches of my experience with that invaluable medicine, quinine.

Under heading No. 1, in your circular, as regards its use in malarial fevers, such as intermittent, remittent, hemorrhagic, pernicious fevers, &c., it is the remedy in this section, given in five-grain doses as an antiperiodic every two or three hours until fifteen or twenty grains are given in the intervals, or remissions. Then, after the paroxysms are broken up, there is no better tonic and restorative among the bitter tonics than two grains repeated three times a day after meals.

Under No. 2—In dysentery, after the acute symptoms subside, it comes in very nicely as a diaphoretic, and to eliminate the malaria, if there is any in the system. In neuralgia, it, combined with opiates, is the remedy.

Under No. 3—In typhoid and typho-malarial fevers, it is deleterious in antiperiodic doses, producing an acceleration of the pulse, with nervous symptoms in the winding up of that fever. If it assumes an intermittent form, and if the stomach will tolerate it, it comes in very nicely; but then it will bear watching.

Under No. 4—In the various zymotic diseases, I have no experience, except in diphtheria and measles. In diphtheria, it is as essential as a stimulant and tonic as it is in the malarial affections we have in this county. In

debilitated cases of rubeola, when the system is not sufficient to produce the rash, quinine, alternated with other stimulants, acts nicely and quickly.

Under No. 5—In pneumonia, especially of the aged, it acts in the first place as an antiphlogistic; in the second, as a stimulant and restorative.

Under No. 6—As an oxytocic, I give it with as much confidence, in ten-grain doses, in the first stage of labor, when the pains are insufficient to dilate the os, as I do to antidote the malaria in intermittents. As a tonic and restorative, there is no one bitter tonic in the *materia medica* that excels it.

DR. J. P. ALRED, OF TROY.

As you have requested me to give you my experience in the use of quinine in malarial diseases, I will, in a short way, try to discharge that duty.

I have thought for years that if we are to expect the kindly and curative action of quinine in malarial diseases, the stomach must be in condition to receive and absorb it, and the system in condition for its action. If we have a proper condition in these respects, we will hear nothing of roaring in the ears, vertigo, &c., but its action will be most kindly. The rule I have adopted, or condition in which to give quinine, is with a soft and open pulse, moist skin, moist and cleaning tongue. I find quinine will act more kindly, and antidote the malarial poison, and if given in small doses, will improve innervation. I always obtain this condition, and am never disappointed in its action. I used to, when I first began the practice of physic, use it in very large doses, and without much regard for the preparation of the system for its reception. I can recall to memory cases in which it did not break up periodic diseases; many more cases in which its influence was but temporary; a large number in which it produced unpleasant cerebral symptoms; and some in which a quinine disease was developed, which caused me to study the action of the drug, if I expected to make it successful in my hands. As an antiperiodic, I put the stomach in proper condition, regulate the circulation, and establish secretion, and give in five-grain doses until fifteen or twenty grains have been taken. I use it in all diseases where there is periodicity. I do not now believe in the indiscriminate use of the drug, as some use it, for all pathological conditions of the system, exciting the nervous and vascular systems, producing a chronic erythism of them that is correctly called quinine disease; and from this, recovery is far more difficult than from the malarial affection. I think it antidotes malarial poison only when kindly received and absorbed, and when the system is in such condition that it can be readily excreted. Given when the condition of the pulse, skin and tongue is that I have already described, its action is as certain as could be desired.

As a stimulant to the cerebro-spinal centres, I find it very beneficial and important in many forms of disease; especially in the advanced stages, where we find impaired innervation, preventing functional activity, or its restoration and continuance by use of remedies. It is essential to success

that innervation be increased, not temporarily by the use of stimulants, but somewhat permanently, and this we accomplish by the administration of small doses of quinine. It also favorably influences the nutrition of the nerve centres, and hence I employ it in the treatment of chronic disease, with enfeebled innervation, as named above. Its general tonic and stomachic influence is most certainly due to its action upon the nervous system, the influence extending to the sympathetic ganglia, as well as to the cerebro spinal centres. In some cases, I find this action very important, improving digestion and blood-making and nutrition.

DR. H. T. COX, OF MOBILE.

In reply to your circular requesting facts and results in the uses of quinine, I can only add my testimony to that of other physicians in corroboration of its therapeutic value in the treatment of many diseases, more particularly those arising from malarial influences. There are but few diseases in which I have not found benefit from its use. According to the best authorities on *materia medica* and therapeutics, sulphate of quinine, given in small doses, is a tonic, and so well are its effects marked in this direction that, with good reason, it has been considered one of the most useful of vegetable tonics. Like many other remedies, however, the therapeutic effects of quinine vary greatly with the doses. From being a tonic in three to five grains, it may, in considerably larger doses, produce indirectly a sedative effect. Physiologically, in small doses it is a tonic, in medium doses it is a stimulant, and in larger doses, of ten to fifteen grains or more, it is a diaphoretic relaxant, sedative, and a febrifuge. Twenty or thirty grains of quinine, divided in two or three doses, given within four hours at any time after pyrexia has reached its height, have a toxic effect, which will be apparent in relaxation and diaphoresis. The patient will be quininized.

The disease in which I have had the greatest experience in the use of this drug, is periodic fever, in which term are embraced all divisions that are essentially identical, viz., intermittent, remittent, bilious remittent, congestive, &c. The malarial principle, which is the cause of periodic fever, is reasonably inferred to exist in the atmosphere everywhere, and in certain sections of the country in more or less concentrated forms, generating disease of serious character; or its influence may be impressed on every disease of nosology. The first and leading object of the physician is the arrest of the disease by antiperiodic remedies, and sulphate of quinine is by far the most reliable, and always to be preferred. In simple intermittent and remittent fever, there is no need of preparatory treatment for the reception of antiperiodics or tonics. In intermittents, I usually give from ten to fifteen or twenty grains, divided in two or three doses, to be taken two hours apart, so regulated that the last dose may be taken two hours before the expected chill. In remittent, if there be any indication of relapse, I give smaller doses, and continue until cinchonism is apparent. In the bilious

debilitated cases of rubeola, when the system is not sufficient to produce the rash, quinine, alternated with other stimulants, acts nicely and quickly.

Under No. 5—In pneumonia, especially of the aged, it acts in the first place as an antiphlogistic; in the second, as a stimulant and restorative.

Under No. 6—As an oxytocic, I give it with as much confidence, in ten-grain doses, in the first stage of labor, when the pains are insufficient to dilate the os, as I do to antidote the malaria in intermittents. As a tonic and restorative, there is no one bitter tonic in the *materia medica* that excels it.

DR. J. P. ALRED, OF TROY.

As you have requested me to give you my experience in the use of quinine in malarial diseases, I will, in a short way, try to discharge that duty.

I have thought for years that if we are to expect the kindly and curative action of quinine in malarial diseases, the stomach must be in condition to receive and absorb it, and the system in condition for its action. If we have a proper condition in these respects, we will hear nothing of roaring in the ears, vertigo, &c., but its action will be most kindly. The rule I have adopted, or condition in which to give quinine, is with a soft and open pulse, moist skin, moist and cleaning tongue. I find quinine will act more kindly, and antidote the malarial poison, and if given in small doses, will improve innervation. I always obtain this condition, and am never disappointed in its action. I used to, when I first began the practice of physic, use it in very large doses, and without much regard for the preparation of the system for its reception. I can recall to memory cases in which it did not break up periodic diseases; many more cases in which its influence was but temporary; a large number in which it produced unpleasant cerebral symptoms; and some in which a quinine disease was developed, which caused me to study the action of the drug, if I expected to make it successful in my hands. As an antiperiodic, I put the stomach in proper condition, regulate the circulation, and establish secretion, and give in five-grain doses until fifteen or twenty grains have been taken. I use it in all diseases where there is periodicity. I do not now believe in the indiscriminate use of the drug, as some use it, for all pathological conditions of the system, exciting the nervous and vascular systems, producing a chronic erythism of them that is correctly called quinine disease; and from this, recovery is far more difficult than from the malarial affection. I think it antidotes malarial poison only when kindly received and absorbed, and when the system is in such condition that it can be readily excreted. Given when the condition of the pulse, skin and tongue is that I have already described, its action is as certain as could be desired.

As a stimulant to the cerebro-spinal centres, I find it very beneficial and important in many forms of disease; especially in the advanced stages, where we find impaired innervation, preventing functional activity, or its restoration and continuance by use of remedies. It is essential to success

that innervation be increased, not temporarily by the use of stimulants, but somewhat permanently, and this we accomplish by the administration of small doses of quinine. It also favorably influences the nutrition of the nerve centres, and hence I employ it in the treatment of chronic disease, with enfeebled innervation, as named above. Its general tonic and stomachic influence is most certainly due to its action upon the nervous system, the influence extending to the sympathetic ganglia, as well as to the cerebro spinal centres. In some cases, I find this action very important, improving digestion and blood-making and nutrition.

DR. H. T. COX, OF MOBILE.

In reply to your circular requesting facts and results in the uses of quinine, I can only add my testimony to that of other physicians in corroboration of its therapeutic value in the treatment of many diseases, more particularly those arising from malarial influences. There are but few diseases in which I have not found benefit from its use. According to the best authorities on *materia medica* and therapeutics, sulphate of quinine, given in small doses, is a tonic, and so well are its effects marked in this direction that, with good reason, it has been considered one of the most useful of vegetable tonics. Like many other remedies, however, the therapeutic effects of quinine vary greatly with the doses. From being a tonic in three to five grains, it may, in considerably larger doses, produce indirectly a sedative effect. Physiologically, in small doses it is a tonic, in medium doses it is a stimulant, and in larger doses, of ten to fifteen grains or more, it is a diaphoretic relaxant, sedative, and a febrifuge. Twenty or thirty grains of quinine, divided in two or three doses, given within four hours at any time after pyrexia has reached its height, have a toxic effect, which will be apparent in relaxation and diaphoresis. The patient will be quininized.

The disease in which I have had the greatest experience in the use of this drug, is periodic fever, in which term are embraced all divisions that are essentially identical, viz., intermittent, remittent, bilious remittent, congestive, &c. The malarial principle, which is the cause of periodic fever, is reasonably inferred to exist in the atmosphere everywhere, and in certain sections of the country in more or less concentrated forms, generating disease of serious character; or its influence may be impressed on every disease of nosology. The first and leading object of the physician is the arrest of the disease by antiperiodic remedies, and sulphate of quinine is by far the most reliable, and always to be preferred. In simple intermittent and remittent fever, there is no need of preparatory treatment for the reception of antiperiodics or tonics. In intermittents, I usually give from ten to fifteen or twenty grains, divided in two or three doses, to be taken two hours apart, so regulated that the last dose may be taken two hours before the expected chill. In remittent, if there be any indication of relapse, I give smaller doses, and continue until cinchonism is apparent. In the bilious

form of remittent fever, I seldom give quinine during the acute stage, upon the hypothesis that the liver is primarily and largely implicated, and that the use of quinine might prove injurious, whilst no good is assured by it as an ectrotic. In these cases, I usually prescribe a mercurial cathartic, together with other eliminative means, which I regard as essential and of indispensable utility. Many cases indicate these measures in their treatment. Then, as early as practicable, I administer a full dose of quinine, viz., fifteen to twenty grains, and continue during the exacerbation, if cinchonism be not produced during the remission. The noted characteristic tendency of malarial fevers to recur after we have arrested their course, and in view of the deterioration of the blood, and depression of the vital powers of resistance to disease, I have for several years been in the habit of prescribing for my convalescing chill and fever patients small doses, combined with a chalybeate, every day, and continued them up to complete recovery. This plan of treating malarial fevers I have pursued for a period of more than twenty-five years, with results such as enable me to add my unqualified testimony in favor of the use of quinine in all diseases subject to malarial influences.

The following brief report of the action of quinine in parturition, may not be without interest:

Mrs. M. D., twenty-seven years of age; primipara at full term of gestation; in her third confinement; had been in labor four hours, the os uteri well dilated; occipto-posterior presentation. The soft parts were relaxed, but labor was retarded from feeble uterine contractions, only occurring at long intervals. Under these circumstances, I administered twenty grains of quinine, and in about half an hour marked uterine contractions were manifest, and retaining their proper intermittent character until the expulsion of the child, which took place an hour after the medicine was administered. The tonic contractions continued after the placenta was expelled. The lochial discharge was moderate, and the after-pains were not severe or long continued.

I am pleased with the good results derived from the use of quinine in my obstetric practice; not that it exerts any effect upon the uterus in a quiescent state, or that it has any special property of exciting uterine contractions in utero gestation, but at full term, when the pains are feeble and inefficient, fifteen to twenty grains of quinine given, certainly do increase the force of uterine contractions in a marked manner; also, lessen the pulse in pregnancy, and relieve nervousness. It tones up the uterus in its relaxed condition after labor is over. I have strong faith in its prophylactic, as well as its nervine influence, in quieting and counteracting the irritability of the gravid uterus. I have never observed any cerebral disturbance or unpleasant effects by its use, even in large doses.

DR. A. G. CLOPTON, OF SCOTTSBORO.

I have practiced medicine in what is considered a malarious county for more than a quarter of a century, and have found quinine a most useful

medicine in all intermittent and remittent fevers, and indeed in all diseases of periodicity. I am far from believing that because one lives in a malarious district he cannot have any other than a malarious trouble. I have found many diseased people living in malarious districts whose troubles could not be attributable to that cause. My observation and experience is that quinine is the most misused of all the medicines we have. I have known of some bad results by reason of its misapplication. I give one striking illustration. I was called to see a young lady, an only daughter, the pride and idol of the family, of full habit and rather robust. Her physician claimed to be too unwell to go after waiting on her twelve days. So, on the 13th I went and found her with the pathognomonic evidences of typhoid fever (enteric of Wood). After a careful examination I told her father it was almost a hopeless case. I did not think it possible for her to live. I was told she was given first calomel, followed by oil and turpentine, and quinine was given her continuously every two hours for eleven days, she having taken more than three ounces. I think I never saw the nervous system so disturbed in any case that I had met before. She died on the 16th day, an exceeding hard death. The other members of the family were taken down (six in all), one after another (no two sick at the same time) in the same way, that is, having nearly the same general symptoms. I treated all these, fever continuing for two, three, four, and one for nine weeks. These all made good recoveries and did not take a dose of quinine. The mother and father attribute the death of their daughter to the immoderate use of quinine, and I am clearly of opinion that quinine does but little if any good in the treatment of typhoid fever, and so in yellow fever. I went to Decatur in 1878, and in treating that terrible disease, some of the physicians used the same drug there. I did not. I don't think I gave a dose of it while there, and in referring to my notes taken at the bedside I see I treated seventy-five cases and lost two. So I am satisfied that quinine is not called for in yellow fever. In response to your 5th interrogatory, I do not consider the drug called for in any of the maladies there mentioned. I have made it a rule for the last twenty years not to use quinine, unless I was satisfied there was malarial poison in the system, or clear manifestations of periodicity.

DR. H. G. CRUMP, OF FERRYVILLE.

1st. In malarial and kindred diseases I find quinine a valuable remedy and almost indispensable.

3d. I also find it a valuable remedy in continued fevers.

4th. I find it a splendid medicine in septicæmia, diphtheria, scarlet fever, and measles.

5th. In rhematism I have used it with good results.

6th. As a tonic and restorative, good.

DR. D. M. A. DANSBY, OF REHOBOTH.

I graduated in the spring of 1835 in the Medical College of Georgia, at Augusta, and came to the canebrake region in this State the same spring, and settled at a place called South Boston, five miles west of Dayton, and south-east of Demopolis fifteen miles, in Marengo county. This was then a wild region. About this time a large number of wealthy planters from Virginia and other parts were buying and settling those rich black lands, and the lands were soon cleared and thousands of acres were put in cultivation. Each summer brought with it numerous cases of fever of nearly every type from malarial poisoning, and many were the new made graves frightening to a young physician as I was. There were old doctors there, and I asked their manner of treating those fevers. I was constantly told the only reliable treatment was purging by mercurials and oil, reducing the heart's action as much as possible by the lancet, and after the fever was broken to give tonics, as quinine, bark, etc.; their patients died all around. I had been differently taught, and when I began to get some practice I pursued a different plan. Most of the fevers this and two or three years after, were of a congestive character. I gave calomel, oil, etc., continually, and from the beginning I gave quinine and stimulants freely; at the same time I used external means, as mustard poultices, red pepper, and in fact any and everything that would excite the surface. My object was to bring out the fluids and relieve the congested viscera. My mode of administering quinine was three grains at intervals of three hours to adults, and when it was rejected, I blistered over the region of the stomach, which generally relieved that organ, and the quinine would be retained. I have been regularly in the practice for nearly fifty years, and still I pursue about the same course. I have never administered quinine in those large doses that some do. I have seen it so given, and it will most certainly have the same good effect, but I prefer the old way, and so give it. In giving such large doses it produces, in many cases, a very disagreeable sensation in the head, that I think it is well to avoid. I believe that it is generally admitted by the whole profession that quinine is the very best and safest antiperiodic known. However, I have met with a good many that dare not take it in even very small doses; in some it brought on emesis; in some a peculiar nervous sensation exceedingly annoying and even alarming; and in some nettle rash. In one or two instances I have known it to produce partial blindness that would pass away when the effect of the quinine was over. In the malarial hemorrhagic fever, that we have often prevailing in the southern part of the State, I am of the opinion that quinine does a real injury. I very reluctantly have come to this conclusion. I fortunately, or unfortunately, have been called on to treat it very often. In all my first cases I used quinine, and so continued for a long time. I thought I discovered its injurious effects; stopped its use in those fevers, and got through with my cases with more safety to my patients. I continue to use it in convalescence, in combination with tincture muriate of iron or the dried sulphate, but prefer the tincture. I well know that in opposing the

use of quinine in malarial hemorrhagic fever, I am coming in opposition to much of the medical talent of the State; but it is most certainly in accordance with my experience and close observation. I am not able to give a good reason why it is so. I will not tax your patience here to give my manner of treating that most difficult and annoying disease, as it would be out of place.

In the typhoid (and so-called typhoid malarial fever) which we all are constantly called on to treat, I have long since quit giving quinine just as soon as the disease is fully known to be such. I formerly gave it in every case. I thought it unsafe not to give it. I felt like my patient ought to be taking quinine, no matter what else I was giving, but I am now satisfied I often did my patients injury by administering quinine. In gastric remittent fevers of infants, I have long since abandoned the administration of quinine. It excites the child and does harm. I have known it given in heroic doses (three or four grains) to children two or three years old, and have seen those children die.

I have administered quinine and opium in bilious colic, and it does well after the secretions are established. It will prevent a return of colic when it is periodic.

In dysentery, I have not given quinine except as a tonic when convalescence was marked.

In pneumonia, I give quinine as freely as I would in our fall fevers, because it is nearly always mixed up with malarial poisoning. Take from me quinine, ipecacuanha or lobelia inflata and calomel, and I would not know what to do in pneumonia.

I have given quinine beneficially in neuralgia, in combination with opiates, in all its forms.

In diphtheria, I have used quinine combined with tincture muriate of iron, and deem it indispensable in that terrible disease.

I have generally administered quinine in cerebro-spinal fevers, but am not satisfied with the results.

I have not given it to any extent in measles, or any of this class of diseases, except as an after treatment.

In rheumatic affections, I use it with good results.

In bronchitis (I mean the chronic form), when there seems to be a periodical return of fever, I give it invariably with marked benefit.

I have not used it in pleuritic affections, except in those complicated with inflammation of the lungs.

My general plan of giving quinine is in the form of pills—one three grain pill every three hours, commencing eight or nine hours before the expected paroxysm. In cases of intermittent fevers, or in remittents, I pay but little regard to stage of the fevers.

When there is any difficulty in swallowing pills, I give it in solution, generally adding a few drops of elixir vitriol, or sulphuric acid.

In chronic chills, I am often in the habit of recommending the following pill;

RECIPE.—Quinine sulphate, twenty grains; iron sulphate, twenty grains; extract hyoscyamus, twenty grains; extract nux vomica, five grains; arsenic, one-half grain; mucilage acacia, a sufficient quantity. Make twenty pills. Give one at a dose four times a day.

I have never seen much good by using quinine by rubbing on the skin, often practiced with infants, but have given it to children by enema with the best results, with a small quantity of starch water.

DR. SAM. H. ESTELL, OF BLOUNT SPRINGS.

In response to your circular letter of the 25th ultimo, I will briefly answer your interrogatories from my individual experience and observation on the uses and abuses of quinine.

1. In the ordinary summer and autumnal intermittent and remittent fever I regard it as the most important of all our remedies. It should be given in moderate doses (three to five grains) at intervals of two to three hours, until twelve to sixteen grains are administered. In the hemorrhagic form of fever, I have not met with the success claimed for it by other physicians. In Sumter county I frequently had to contend with this fever. In this mountain region I have not seen a case. In pernicious or congestive forms of fever, I have found no remedy to equal it—rarely requiring more than fifteen grains divided into five grain doses and given every two hours.

2. In the autumnal dysenteries, I use it freely and almost always with good results. In the early spring dysenteries, I seldom have seen any marked beneficial results. In bilious colic I have comparatively no experience.

3. In the treatment of typhoid, continued, or typho-malarial fevers, I have had a very long experience in the county of Sumter, and a somewhat limited experience in the mountain regions of this section of Alabama. I have given quinine in small and large doses in almost all stages of the fever, and the only good I ever saw derived from the drug was that in doubtful diagnosis the quinine rarely failed to develop the disease, and for several years I abandoned it entirely. The first few cases I had in these mountain districts, the remissions were so well marked that I used quinine freely with no good results. During the last summer and fall I abandoned it entirely, and my patrons did as well if not better without it. The mountain fever I find here on the highest mountains, as well as in the valleys and coves, and I am well satisfied that the hasty and indiscriminate administration of quinine is detrimental and dangerous to the patient. I have seen several fatal cases produced by it, I have no doubt.

4. In yellow fever, dengue, small pox and scarlet fever, I have very little experience. In diphtheria occasionally I have obtained satisfactory results. In septicæmia I don't remember to have procured any favorable results. In measles I have given it to develop the rash almost always with a good degree of success.

5. In bilious rheumatism, I uniformly give it with some very remarkable

cures. In pneumonia and pleurisy in Sumtêr county I gave quinine freely, with excellent success. I have had no experience in Blount yet, but will try it when occasion presents itself.

6. I have not as yet obtained any satisfactory conclusions so as to be able to express an opinion as to the physiological reaction of quinine. I will, however, state that in my opinion quinine is a perfect antidote to malarial diseases in my hands if administered judiciously. I have cut short many an attack of intermittent and remittent fevers with the drug unaided. As a prophylactic I have unlimited confidence in quinine. I have waded through many epidemics of malarial diseases in Sumter and Marengo counties, taking one to three doses every day, and escaped while nearly all others were attacked. In regard to idiosyncrasies, I have seen a few persons in whom quinine developed nettle rash. In one case a single dose produced alarming symptoms, insensibility, coma and exhaustive sweats. This man still lives and can't bear a dose of quinine. As to doses, I rarely prescribe more than sixteen grains, divided in three or four doses, and given at intervals of two or more hours. As to any particular mode of administering, I usually give the patient choice, so as to retain it on the stomach. I have very little experience in the hypodermic use of quinine. In using it in the form of an ointment, sometimes I have obtained the desired results, but usually the results are not satisfactory.

DR. E. H. FOURNIER, OF MOBILE.

I have been using large doses of quinine for its apyretic effects for several years in specific fevers.

In symptomatic fevers my observations of its power to reduce temperature has not been sufficiently numerous to justify a statement. In pneumonia, however, I have obtained satisfactory results.

The continued form of fever, which has been prevailing to a greater or less extent in Mobile and vicinity for the past two years, has furnished examples of the efficacy of quinine, when given to reduce fever, so numerous, that it may be regarded as a specific treatment of the disease. The important factor in this malady has always seemed to me to be the degree of temperature. The progress is measured by the ranges of the thermometer. It is the blood heated several degrees above the normal, and this continuing for several weeks, which induces changes of a degenerative character in heart, lungs, brains and intestinal glands which precipitates a fatal termination at an early period, or destroys the patient after the fever has completed its natural history.

Such agents as will reduce temperature and preserve, at the same time, the integrity of the vital organs, should be employed, with a continuance commensurate with the febrile action, and only limited, in its force, by a temperature reduced almost, if not quite, to the normal.

For this purpose I have relied principally upon quinine, giving from 10 to 40 grains when the evening temperature reaches 103 degrees. The following

morning the thermometer should indicate a fall of three or more degrees; otherwise a larger dose should be given the succeeding night and so on, until such reduction is obtained. Afterwards it will not be necessary to increase the quantity, nor will it be required to repeat the dose every day, unless the evening exascerbation should reach the high point. The quantity will necessarily be greater in the earlier than in the later periods of the fever.

The effect of the reduction, is to retard the rise of temperature for several hours, and thus the patient will have an interval of freedom from fever.

It is in producing this arrest that the value of quinine principally lies, for if a continued or remittent form of fever is converted into an intermittent, then the force of the disease is broken and its effects upon the organism materially modified.

The importance of giving the quantity sufficient for the purpose, at night, cannot be overestimated. If administered in the early morning, as some persist in doing, and so condemn the quinine practice, the fever will rise without much if any interruption; the patient will complain of the quininism, and, indeed, the cerebral disturbance will be marked. On the contrary, the night dose will generally accelerate the retrocession of the fever, and induce sleep. Patients mention the only inconvenience to be a slight fulness about the head on the following morning; but this they willingly tolerate for the night's rest procured. The depressing influence which sometimes follows, but not commonly, will depend upon a greater susceptibility to the action of the drug or to a larger portion than the resisting fever demands for its reduction. The only instance in which decided depression has occurred, in my practice, was in the person of a little boy about six years of age, to whom I gave increasing doses, without effect, until one of fifteen grains was administered. The following morning temperature was below 94 degrees. There was a cold sweat, but the mind of the little patient was clear and his breathing was good. The interesting fact connected with the case, is that though the fever was at its middle period when the large dose was exhibited, it did not rise above 101 degrees during the remainder of its progress, and it was therefore unnecessary to give any more quinine.

In the case of another child, eleven years old, whose temperature had reached for several days 104 degrees in the morning, and 106 degrees in the evening, without benefit of doses increased from 10 to 15 grains, 20 grains were given at 9 o'clock at night, when the fever was at its highest. After this the patient slept soundly; sweating was induced, and the morning temperature was less than 100 degrees, the evening being 102 degrees. From that time on I did not have occasion to give so large a dose, for the degree of heat did not demand it, but no depression followed and no head symptoms presented that were at all disagreeable.

It is my experience that it is doses too small to effect the desired object, that produce cerebral disturbance, for such act as an excitant, additional to the unreduced fever.

The apyretic influence of quinine is equally manifest in the remittent forms of the more destructive malarial fever, and adds greatly to its antipe-

riodical property; for in its power to induce perspiration, quiet nervous perturbation and reduce fever heat, the very conditions are anticipated which are looked for to occur at the remission, whilst the system is supplied at that moment with the agent most relied upon to prevent the reaccession of the fever.

Opinions have differed as to the proper time of administering quinine, some advocating the exhibition at the remission; others during the febrile stage, but both with the single object in view of having the patient under its influence to prevent the return of fever; but since it is recognized that the drug has the power of almost jugulating the fever, it can be no longer a question of individual election, but it is demanded that the medicine should be given during the fever, but in quantity sufficient, and for the object of reducing the temperature.

I do not assert that the fever will be prevented from recurrence by this agent alone, for experience has taught me that calomel or some other cholagogue is usually needed to disgorge the mucous tracts of the alimentary canal, obstructed in glandular function and power of absorption by the repeated or continued congestions.

DR. G. T. GIBB, OF WHITNEY.

You desire to know some of my experience in regard to the therapeutic use of quinine as a remedial agent. I have used it more or less for forty-five years in practice, and can say that it is a good antiperiodic in intermittent, remittent and malarial fevers in all their various forms. As a tonic and restorative it has no equal, after the proper use of good alteratives. It acts in harmony with the laws of life, restores the energies of the living powers, and gives tone to the whole animal economy, when properly administered. It has been abused by the ignorant and those who are inexperienced, or unacquainted with its medical properties, but all those who are competent judges (in the room of the sick) will then discover its therapeutic use.

DR. J. M. GODFREY, OF SUMTERVILLE.

I regard quinine as the all-important remedy in the various forms of malarial fevers. In my experience, it very rarely fails to cure intermittents, without the use of other remedies, unless the case has been neglected or, from other cause, the malarial cachexia exists. Here, of course, the deranged condition of the blood, liver, spleen, &c., requires additional medicines.

In view of the difficulty of determining, at first, what variety of intermittent is present (quotidian, tertian, &c.,), and as a matter of safety I direct the immediate administration of quinine in the dose of about ten grains, and afterwards fifteen or twenty grains each day for three days.

Subsequently, it is to be taken at the hebdomadal periods until four weeks have passed, beginning the 6th, 10th day, &c.

I prefer to have the patient under the influence of the medicine within a short time before the expected chill.

In children, where there is difficulty in getting it retained in the stomach, I frequently use it by enema.

In the pernicious or congestive form I invariably use it by hypodermic injection, and am rarely troubled by ulcers, &c., as a result.

In remittents, I give quinine in full doses at once, notwithstanding the existence of gastro hepatic derangements, preferring if possible to get the patient under the influence of the remedy as soon as I can, and if additional ones are necessary, which is very often the case, administer them as soon as convenient. A long continued preliminary treatment I regard as incurring an unnecessary risk.

I use quinine also in the hemorrhagic form of malarial fever, depending upon it as the main remedy. The excessive nausea present in these cases renders it very difficult of retention in the stomach, and efforts to overcome this trouble make it necessary to resort to all the usual expedients for this purpose. If, however, these are used with discretion and quinine used periodically, the patients will usually "pull through."

Typhoid and other continued fevers not having prevailed in this locality for some years past, my experience in the use of quinine in these diseases has been limited.

I use quinine habitually in pneumonia, if the case is seen in the first stage, in full dose (15 or 20 grains), with an opiate, in the hope of cutting it short or breaking up the disease.

I use it also as an apyretic in the second stage, and am satisfied that I derive benefit therefrom. In a case which I have just dismissed in a boy twelve years old, where the temperature was frequently 103° to 104°, full dose administered in the morning would produce a decided reduction of the temperature for perhaps 12 hours, and a corresponding amelioration of all the other symptoms.

In these affections, it is also useful, where there is depression, in stimulant doses of two or three grains at short intervals.

In regard to the mode of administration, while I think the solution preferable, I have usually had satisfactory results by giving in capsules. I rarely give it in the pilular form.

In children I advise its administration in coffee or milk, or by enema.

I also frequently give quinine in cases of labor, where the pains are slow and inefficient, so that the woman is almost worn out. Here doses of about ten grains have the result of steadying the pains, as it were, and render them more efficient.

I have never known harm to result from the use of quinine during pregnancy.

I frequently meet with persons who allege that they are unable to take quinine for some supposed disagreeable effect, but generally find such to be imaginary.

I have met with two instances where it appeared to produce urinary hemorrhage whenever administered. I do not remember any other idiosyncracy.

DR. JAMES A. GOGGANS, OF ALEXANDER CITY.

Although it was in 1820 that a satisfactory analysis of cinchona was made, there is no remedial agent in our *materia medica* that still elicits such extended discussions, or concerning whose therapeutic action there are such contradictory opinions. It was as early as 1822 that the curative effects of the sulphate of quinine was beginning to be recognized in the periodical fevers.

Regarding the *modus operandi* of quinine in the way that I do, viz: that it is a powerful sedative and narcotic to certain nervous centers, thereby acting as a controller of all kinds of vascular excitement, will necessarily give to it a wider range of application in the treatment of disease than any other remedy in our *materia medica*. Since it was in the periodical forms of disease that quinine was first used, I will discuss briefly its application to said forms of disease, first, viz: The malarial fevers, intermittent, remittent, hemorrhagic and pernicious.

The value of the sulphate of quinine in intermittent fever cannot be disputed, while there are different opinions concerning its administration in the other forms of malarial fever above mentioned. All writers admit that quinine is the greatest remedy in the treatment of intermittent, and, in fact, in modern times, death almost never happens from ordinary intermittent when quinine has been judiciously employed in its treatment. I commonly administer fifteen to twenty grains between the paroxyms, and if called too late to administer a purgative and obtain its action, I administer the quinine at once. The beneficial effect of purgatives in intermittents, however, cannot be over estimated. If the paroxysms are arrested by the above means, I then direct that two grains be taken thrice daily until the seventh day, at which time there is a greater tendency for the paroxysms to recur, I then direct that ten grains be taken. The subsequent treatment consists in an occasional purgative, together with the daily administration of from three to six grains of quinine.

In remittent fever, the remissions are of variable duration. It is, however, generally best to wait for the commencement of the decline of the fever, and then commence the use of quinine. To delay the administration of quinine until a complete remission has taken place, would often times hazard the life of the patient, for it would then be impossible for absorption of the agent to take place before the cold stage comes on, and, its following exacerbation, which is nearly always worse than the preceding one. If given as above stated, viz: after the pulse has begun to fall, and the bowels have been freely moved, it seems to hasten the decline, and when the period of remission has arrived, the patient is fully under the sedative influence of the remedy. But there are many cases of remittent fever

where the symptoms are seemingly continuous, and no distinct remissions occur. Fortunately, however, we have abundance of clinical evidence in favor of giving quinine during any stage of remittent fever. To a male patient nine years of age suffering from remittent fever of a very severe type, the temperature in this case was 105 degrees Fahenheit, pulse 130 and irregular, with more delirium each successive day, I administered at once fifteen grains of quinine. Instead of its acting as an excitant and stimulant, it rapidly reduced the pulse, lowered the temperature, and relieved the delirium. Many such cases illustrating the sedative actioh of quinine under similar circumstances could be cited, but I deem it unnecessary.

In pernicious fever our great reliance must be in quinine. After the first paroxysms I have never delayed the administration of quinine. I have given as many as sixty grain in the first twenty-four hours. My observation has been, that, if the remedy be administered at the proper time, that there is always a tendency to recover.

It was as early as 1826 that the sedative action of quinine began to be recognized. It was then that Perrine administered to himself large doses of quinine during the height of fever. In the face of so many historical facts, corroborated by such eminent men, and extending through a period of two-thirds of a century, besides the many verifications of the same facts by myself at the bedside, I never feel that I have done my duty when called to see a patient suffering from any severe form of fever, until I have administered a full antipyretic dose of quinine.

I have had but little experience in the treatment of hemorrhagic malarial fever. I have seen a few cases, however. In these I always commenced the treatment by giving ten or fifteen grains of quinine, and then give five grains every two hours for at least twenty-four hours. At the same time giving large doses of muriatic acid. This treatment is generally successful.

In the form of malarial fever occurring in females while in childbed, and presenting a train of very grave symptoms, accompanied by almost complete suspensions of the mammary secretion and lochial discharge, I have found quinine to act most admirably.

Quinine is the most potent remedy in periodical neuralgia, and even in neuralgia that is not strictly periodical, its administration is often followed by the most happy results.

Case I—A male patient seven years of age was suffering from intermittent fever, which was put under the controlling influence of quinine. On the seventh day after the last paroxysm, he was seized by severe pain in the bowels at about 8 p. m., a cathartic was administered, followed by anodynes internally and locally. There was a complete remission of the symptoms on the following morning, and regularly on each following night the symptoms were renewed. There was but little fever in this case, but the suffering was certainly very great. After several nights of agony and suffering, I determined to give quinine, and accordingly gave three grains every three hours during the remission. On the night following the symptoms were renewed, but were not so severe. Therefore the quinine was continued during the remissions, and soon had the disease under its narcotic influence.

Case II—A patient suffering from periodical fever was put under the controlling influence of quinine. A few days later he was attacked by severe periodical neuralgia of the supra-orbital nerve. The paroxysms of pain would come on about 8 a. m. and continue until about 6 p. m. Ten grains of quinine thrice daily completely arrested the disease.

Case III—Only recently a gentleman made application for the relief of neuralgia, referable to the alveolar cavity, from which a cavious tooth had been extracted a few days before. The pain would commence in the cavity and soon extend to the whole jaw or corresponding side of the face and head. He stated that he had resorted to various liniments and had taken large doses of laudnum and brandy, still the pain would only remit on the following morning, and return in the evening. I decided to give quinine, and accordingly gave twenty grains at once, and followed it by five grains three times daily, and he made a complete and rapid recovery.

Croup is another disease which is notably easy to bring under the influence of quinine. The remissions occur in the morning and the exacerbations in the early night. I am thoroughly convinced that in a large majority of cases that the disease can be promptly arrested by large doses of quinine. I am accustomed to give fifteen or twenty grains to a child two or three years of age in the twenty four hours.

In the treatment of the continued fevers—typhoid fever and typhomalarial fever—I have often witnessed the most happy results from the administration of quinine. The elevation of temperature is certainly more favorably influenced by quinine than any other remedy; consequently, when called to attend a case of continued fever I usually prescribe an antipyretic dose of the sulphate of quinine. No special course of treatment can be followed in every case of continued fever, but I do believe that in the large majority of cases that the pulse can be decidedly decreased in frequency and the temperature kept at a safe limit under the quinine treatment.

In erysipelas, rheumatism, pneumonia and bronchitis I have often seen the most beneficial results from the sulphate of quinine. In order to get its salutery effects in these diseases, it must be given in full doses, and maintain its sedative and antiphlogistic action until they have run their natural inflammatory courses. I am firmly of the opinion that we possess in quinine a powerful antipyretic, and that when given in large doses it will lower the temperature of the blood both in health and disease, and that its sedative action may be so profound as to produce the most alarming symptoms and even death.

These effects on the nervous centers are always and under all circumstances necessarily the same. Taking this view of its physiological action, we can readily understand why its salutery effects become manifest when there is perverted life.

In my experience, I have seen but two cases in which the taxicological effects of quinine were manifest.

Case I—A male patient seven years of age was suffering from remittent

fever of severe type, and whose temperature was as high as 140 degrees Fahrenheit, pulse 130, with wild delirium. He had been taking three-grain doses of quinine every three hours for forty-eight hours, but it had produced no appreciable change in pulse and temperature. He was ordered to take five grains every three hours. The first dose was given at about 7 a. m. In three or four hours, the temperature was reduced to 98 degrees Fahrenheit, pulse 76 beats per minute; pupils were widely dilated, and he was vomiting a dark greenish fluid; still, the delirium was very active. The symptoms strongly reminded me of those produced by an over-dose of veratrum viride. He was ordered half an ounce of brandy, to be repeated in drachm doses every two hours. These symptoms gradually improved, and at 6 p. m. the temperature was 102 degrees, pulse 115. Nothing was given him until the next morning about 7 o'clock, at which time the pulse and temperature were still the same. He was then given three grains of dextro-quinine every three hours, which soon controlled the fever, and he made a good recovery.

Case 2—This was a female patient about thirty years of age, suffering from periodical neuralgia. She was ordered to take fifteen grains of the sulphate of quinine three times daily. This she took for two days, but it failed to arrest the paroxysms of pain, and the dose was increased to twenty-five grains. Six hours after the second dose was administered, which was about 6 p. m., I found her bathed in a cold perspiration, very restless, temperature 98, pulse 60, and she was so near blind as to be unable to distinguish her husband from myself at a distance of a few feet. These symptoms gradually improved under the influence of stimulants and other tonics, and arsenic, and she made a good recovery in eight or ten days.

I have no evidence that the sulphate of quinine has the power to originate uterine contractions. I have used it, however, quite extensively to bring on contractions, where they have already been set up. I will mention a case. I was called to attend a lady who was taken with labor pains twenty-four hours before my visit. I found the parts well dilated, and no obstruction to the natural delivery of the child. Still, there was complete innervation of the uterus. I gave her, at one dose, ten grains of the sulphate of quinine, and she was delivered of a dead child in forty-five minutes.

I have administered the sulphate of quinine to many pregnant women suffering from the many forms of malarial disease, but have never seen an abortion that I could attribute to its administration.

In regard to the best methods of giving quinine, I have found it best given in solution, but have often given it with good results in capsules, in pill form, and suspended in the mucilage of the inner bark of *ulmus fulva*. My method of preparing the mucilage is to obtain the fresh bark, and cut it into pieces about three inches in length, and stand them in a glass of water. After standing for two or three hours, the mucilage collects on the surface of the bark. I then remove the mucilage to a spoon, place the quinine on the mucilage, and completely envelope it by means of a pocket knife. The mucilaginous matter and water are so blended that the quinine

is not dissolved before it can be swallowed. This is my mode of giving quinine to children. It completely disguises the nauseating bitter taste, and nothing is more easily swallowed. It may seem that I am very precise in giving the details of this method of giving quinine, but I think it well worth remembeing.

DR. J. F. GOLDMAN, OF HUNTSVILLE.

In answer to your circular of inquiry as to "the therapeutic uses of quinine in Alabama," I would answer as follows:

1. "The uses of quinine in malarial fevers," etc. It is a custom almost invariable with me to use quinine in all fevers of malarial origin, or of intermittent form, and most usual as an initial treatment; and this too, whether the fever has, or has not been ushered in by a chill, or rigors. So far as my experience goes, there is no drug in our *materia medica* that can be substituted for it, as an antipyretic. It amounts to something very like a "specific" in all malarial fevers.

2. As to maladies of malarial origin, such as "dysenteries, neuralgias, bilious colics," etc. In making my diagnosis of any of these diseases, if I arrived at a definite conclusion that they are malarial in whole, or in part, I prescribe quinine as one of the remedies to be relied on in such cases. Furthermore, any disease clearly marked with periodicity, calls for the administration of this drug. In certain forms of neuralgia, and almost all forms of biliousness, I use it with great satisfaction.

3. "The uses of quinine in continued, and *quasi* continued fevers, as typhoid and typhoid malarial fevers," etc. My practice has been, and is, to begin treatment with large doses of quinine. Even in typhoid fevers, I most usually begin treatment in this way, and sometimes during the progress of typhoid and typhoid malarial fevers, I give quinine in small doses to control febrile symptoms.

4. "The uses of quinine in zymotic fevers." I have but limited experience in the treatment of yellow fever. I used quinine, but was not greatly impressed with its value in that fever. In septicæmia, I have invariably used this drug with good results. I have not always used it in diphtheria, and when I did so, only as a tonic. I use it in cerebro-spinal fever, and also in scarlatina. I have never used it in measles, and have had no experience in the treatment of small pox.

5. As to its uses in phlegmasias, would say: My uniform practice is to commence the treatment of pleurisy and pneumonia with large doses of quinine, and sometimes repeat it during the progress of the febrile stage.

6. From the foregoing you will readily conclude that as an antipyretic, I look upon quinine as our sheet anchor. As to its toxicological effects, I know of none that would endanger life, except possibly, in some idiosyncrasies where the drug was not well tolerated. I have one patient, a girl nineteen years old, that almost immediately on taking a dose of quinine, bursts out all over with the most tormenting urticaria, not to say alarming. The worst results from the use of quinine that have come under my observation,

is its bad effects on the hearing. And in my humble opinion, here lies the sorest charge against this otherwise inestimable drug. Much of the deafness created in the South, I am convinced, arises from the use of quinine in heroic doses. I myself cannot use it on that account, and am treating a patient now who cannot take it without almost depriving her of the sense of hearing for months after using it.

I felt quite sure until one week ago that I could speak authoritatively, so far as my experience goes, on "quinine as an oxytocic," never having hesitated to prescribe it on account of pregnancy, and always without bad effects; when lo! I was called at midnight to see a fourteen year old girl in the throes of parturition, after a pregnancy of five months. From the history of the case, I could not trace the abortion to any accident. The girl was as large as her mother, with very large and finely developed mammæ and genital organs; had been perfectly healthy until within three or four days of her confinement; she had two well marked chills, followed by hot fever. Her mother bought some quinine and proceeded to dispense it herself. From what I could learn, the doses were not over large, nor too frequent. But where was the abortion to be accounted for? It is but due the drug under consideration to state that the chills were very hard and the fever unusually high, as was the case (as to fever) when I first saw her. So I have my doubts as to the oxytocical power of quinine being the cause of the abortion. But here are the facts, and I leave you to draw your own inference from them.

My usual mode of using quinine is in combination with podophylin, leptandrin and capsicum. I mean as an initial practice, in fevers of malarial origin, and phlegmasias—more especially as to the last mentioned in pneumonias, and where there is biliousness. The following is my favorite prescription: Sulphate quinine, one scruple; podophylin, one and a half grains; leptandrin, four grains; capsicum, one grain; make five capsules, sig. one every two hours. I use this, or a modified form of this prescription, in all cases where there is biliousness or hepatic trouble, combined with malaria or phlegmasia.

Since you ask for illustrative cases, I will give you the following: December 23, 1882, I was called to see Miles Orton (proprietor of Orton's Circus), age forty-three, strong muscular build, the "bare-backed rider" of his circus, married, and father of three healthy boys. I found him suffering with pain in the lower lobe of the right lung. Pulse full and bounding, temperature 104½, tongue heavily coated, brown in the center, with scarlet edges, hot and dry, respiration hurried, frontal headache and very bilious, aching of back and legs, thirst for cool acid drinks, some tenderness in bowels, especially in both inguinal regions. The history of the case revealed the fact that during the two days before he had exposed himself to rain and cold, without his overcoat, while loading his show on the train. Had once before had trouble with his lungs and kidneys, resulting from a fall from a horse in the circus ring, causing some hemorrhage from his lungs.

Diagnosis—Pneumonia, with typhoid tendency. Ordered mustard to

chest, and gave the following prescription: Sulphate quinine, one and a half scruples; podophylin, one and a half grains; leptandrin, four grains; capsicum, one grain; make five capsules; sig. one every two hours. Next day, December 24th, temperature 103 degrees, pulse softer, breathing less rapid, had several very bilious actions, also vomited almost pure bile, having some cough with slight and exceedingly tough expectoration. Ordered firwein, of each, ounces two; tincture veratrum viride, twenty drops; honey, of each drachms one; sulphate quinine, one grain; sig. teaspoonful as required. Patient was drowsy from the first, with low muttering delirium during sleep. December 25th, patient easier, temperature 102 degrees, expectoration freer, and tinged with blood. December 26th, patient much better, skin moist, sputa somewhat rusty, but little fever, bowels acting rather freely, with some tenesmus and mucus. December 27th, patient took cold during the night, fever lighted up, temperature 103 degrees, pain shifted to middle lobe of the right lung, bright blood and rusty sputa combined. Called in Dr. M. C. Baldridge, and after thorough examination and consultation, agreed on the following course of treatment: Sulphate quinine twenty grains, in five doses, two hours apart, with a large fly blister over the right lung. December 28th, fever reduced one degree, pain not so great or respiration so labored. Prescribed tincture veratrum viride, twenty drops; potass chloras and potass bicarb, of each drachms, one; aqua and syrup tolu, of each, ounces two; sig. dessertspoonful every two hours. December 29th, patient better, blister not drawing well, typhoid symptoms passing away, bowels still acting freely, with strong bilious symptoms, urine quite copious. No especial indications worthy of note up to June 2d. Some pain in the right lung, ordered Bassill's ointment over the blister to keep up moisture and irritation. Slowly convalescing up to January 13th. Ordered podophylin in quarter grain doses to relieve constipation. January 15th, ordered jalap and bicarb soda, each twenty grains; calomel three grains, divided into nine powders, two per day, to relieve biliousness. As the patient had at one time a tendency to diabetes, and as his urine was very copious and quite limpid, I took the responsibility in the absence of Dr. Baldridge, to prescribe rhus aromaticus, five drachms; syrup tolu and water, to make two ounces. Teaspoonful three times a day. Two doses reduced the quantity of urine greatly, and the third brought it to normal, with no more trouble thereafter. The patient convalesced quite rapidly. You will observe that in this case, fifty grains of quinine was given, first and last, with the best results.

DR. W. W. GOLSON, OF AUTAUGAVILLE.

According to request, I give you my views and experience with quinine. I find quinine stops paroxysms of any disease, of a periodical nature. I find quinine only an antiperiodic; do not look upon it as having any antimalarial properties about it, nor have I ever discovered it to have any tonic properties. I have never derived any benefit from quinine, except when

as an antiperiodic; but always look upon it as indispensable in all periodic diseases of all classes. I have used it in every style of disease to break up the periodicity. Quinine causes a dilatation of the capillary blood vessels, and diseases of a scorbutic nature are sometimes mistreated with it. Hæmaturia is sometimes brought on by ignorant physicians by the use o quinine by not using such styptics for the kidney as are needed in such cases as are subject to the disease. Also, urticaria is sometimes brought on in some few instances by imprudent physicians. Quinine has no bad effect on any case according to my experience, if judiciously used. It sometimes irritates the stomach; for years I have not been able to retain a grain of quinine. The mental disturbance created by quinine I think originates from over dosing and indiscriminate use of the article when there is already a great dilitation of the capillaries of the brain. I never use quinine until I create contraction by ergot, bromide, or something of that nature. I always use quinine in all diseases of a periodical nature, or any resemblance thereof; let it be fever, pneumonia, neuralgia, dysentery, rheumatism, odontalgia, or wounds, etc. I have never been disappointed with it yet in its breaking the periodicity up immediately. I seldom use more than nine grains in twenty-four hours, and never more than twelve. I use it in from one to four grain doses, from one to four hours apart; the good that twelve grains of quinine will not do, I do not think any quantity that could be given would do. Those physicians who give more in their practice have a great many more fatal cases of a congestive and hemorrhagic nature, than we who prescribe the nine to twelve grains a day. I find quinine does not arrest the periodicity in diseases that occur between sunset and sunrise, and therefore I seldom resort to it in such cases, unless combined with arsenical or iron preparations. Quinine only arrests the course of a disease for the time; gives the affected part rest from the periodic attacks of the symptoms, and gives nature time to restore to a healthy condition, or allows the thoughtful physician time to administer such remedies as are needful in his case. I only trust it at a given time, and am always wide awake in selecting such remedies to administer to help nature to perform such cure as is needed in each individual case. Quinine has no curative effect, as I have been able to discover, but a great time giver, the best of all means in the hands of a good physician. Without quinine I could not practice with any satisfaction, it being the means to stay the course of a disease, until by properly administered remedies the disease or its cause may be removed. It is certainly the greatest of all remedies that we have in our possession; none other in our possession has the power of making still disease as quinine. My practice has been since 1854 in one of the most malarious districts, or so considered.

DR. J. J. HENDRIX, OF LUSK.

I have thought that quinine had a good effect on the liver, in stimulating it to action when in a torpid condition; and I have taken it and given it as an expectorant with apparent good effect. For these purposes, I give three

or four grains five or six hours apart. I use it in all malarial fevers, and consider it the only reliable remedy we have for them. I think malaria often produces dysentery, cholera morbus, and other derangements of the bowels, and it is a very frequent cause of neuralgia; and of course quinine is the great remedy. I use quinine in pneumonia, rheumatism, typhoid fever, and, in fact, in all diseases. I know that it is good in all complaints, even in consumption; but whether it has any remedial virtues outside of being an antidote for malaria, I do not know. And how are we to know, when every man, woman and child in Alabama is poisoned? All, all Alabama is breathing and inhaling the poison from June to October, and in some localities the poison is being inhaled a greater length of time. Quinine will destroy this poison; it will cleanse the system from it. If I have a case of pneumonia, I give quinine, with the expectation of destroying the poison in the patient, and as I do that, the inflamation of the lung becomes easier to control. I then have but one disease to contend with. I am under the impression that it takes more quinine to destroy the poison, when the system is full of it, than many imagine; but according to my experience, ten or twelve grains per day, continued twenty or thirty days, will do it. After the system is cleansed of the poison, we might have a fair chance of testing its other virtues, if it has any. I mean to say that quinine, given at the above rate for that length of time, will do it, if the patient is not inhaling the poison at the time. I think many people are constantly dying for lack of quinine. The great fact is overlooked that everybody is more or less poisoned with malaria. And then we have some such singular cases of malaria. One will go deranged, without the circulation being affected much; another nearly blind, with strange, indescribable sensations; another will have chorea; another will have an intolerable pain just in one eye, and another hemorrhage from some organ. Quinine will cure all by killing the malarial poisons in them.

DR. B. W. HINDS, OF NEW HOPE.

At your earnest request, I proceed to give my opinion upon the use of quinine as a therapeutic remedy in the various diseases catalogued in your general circular to the medical fraternity of our State. I would first state that I will not attempt anything like an elaborate reply to all the interrogatories in your circular, for to attempt that in a short note would be futile.

You have so classified and arranged the diseases for which quinine is generally used, that the subject-matter of your inquiries is couched in seven general interrogatories. I will now take them up in order, and give my views in practical detail.

1st. The uses of quinine in malarial fevers. The first effect that I desire in the uses of quinine in the treatment of malarial fevers, is its antiperiodic effect, for which purpose I regard it as the *sine qua non*. I have used no remedy since I have been in the profession which compares at all with quinine in producing those great constitutional changes which we observe

from the use of the remedy in the treatment of intermittents and remittents. I give it alone to control the fever, and I have not failed in a single instance to anticipate its action. I have failed in no instance to control fevers of the above named class, by the persistent use of quinine in some form. I have treated a great many fevers of this type (uncomplicated) successfully without any other remedy. In the more pernicious forms, I frequently give adjuvants, in order to assist in bringing about the much desired results of intermission or remission. Failing in this, after the lapse of twenty-four or thirty-six hours at most, I give fifteen grains sulphate of quinine per orem, if there be no great amount of gastric disturbance. If it is not tolerated by the stomach, I administer it by enema, given in starch water, or some other suitable vehicle. To sum up, under the first head, I regard quinine as our great sheet anchor in the treatment of remittents, intermittents, hemorrhagic and pernicious fevers.

2d. The uses of quinine in other malarial maladies, namely, dysenteries, neuralgias, bilious colic, etc. In all dysenteries accompanied with fever, where there is a marked periodicity to the malady, I use quinine, but generally in combination. When in any given case, I give it in full doses, or, for its antiperiodic effect, I combine some opiate with it—for instance, tincture of opii—*pro rata*. For neuralgia, especially the periodic type, I invariably give quinine, from eighteen to twenty grains all at once, to produce the shock as quickly as possible. For bilious colics, I give quinine, especially if there is any fever or dryness of tongue. In bilious colic, the liver is greatly at fault, and the quinine promotes a healthy action of that organ.

3d. Sometimes I give quinine in typhoid fever, where the evening exacerbations are decided, but I give it with extra caution; and I have sometimes doubted the propriety of its use at all in uncomplicated cases, so little good have I often experienced from its use. But in typho-malarial, so-called (and, by the way, I like the nomenclature), I nearly always give quinine, and I think with the happiest effect; but I do not give it with the same reckless hand that I do in the bilious forms of fevers. Still, I give it pretty freely—ten to fifteen grains in twenty-four hours—and I know that I have seen no bad results from its use in any given case. On the contrary, I am sure that I have seen much good accomplished by its judicious use. In continued malarial fever, I think its use is clearly indicated.

4. Zymotic diseases, septicæmia and diphtheria I think I have seen benefitted by quinine. I have had no good effect from it in cerebro-spinal fevers. Dengue and small pox I have never seen in my practice.

5. Rheumatism—I invariably give quinine in rheumatism. I have been from early boyhood a subject of rheumatism, and can speak in terms of highest praise of quinine. I believe it has a better effect given in one full dose, eighteen to twenty grains, than when given in small doses often repeated.

Pneumonia—In my part of the country we often meet with bilious forms of pneumonia, with marked exacerbations, and often decided remissions, with a wide tongue, coated with a white or yellow coat, showing clearly the

bilious type. In all such cases I give quinine daily, from fifteen to eighteen grains, usually during the intervals of fever, in from three to four doses per diem.

Bronchitis, I think, is often benefitted by the timely use of quinine, especially where there is decided evening exacerbations.

Plurisy is one of the many diseases in which and for which I have used quinine pretty extensively with the best results. I use it per orem in solution when possible, for the simple reason of its rapid absorbtion; though sometimes administered upon the denuded skin, made bare by blistering.

As an antipyretic, I stated in the outset that I gave quinine to stop the fever, and by that expression I forestalled anything else I might say on the subject; but I will state in this connection that I believe it to be the best, or one amongst the best, febrifuges known to the profession, Prof. Bowling's "salines" not excepted. I have given quinine when the pulse was 130 or 140 and pumping away like a two horse power engine, and under its potent influence I have seen it lose its force and volume, the skin relax, the heat subside, and a beautiful perspiration come out on the patient; and I have seen it happen so often that I am fully persuaded that it could not be a mere coincidence.

(Quinine as an oxytocic) I have never tried. For that purpose we have such an efficient remedy in the secale cornutum, and it has answered so admirably in my hands in every instance, that I have had no occasion to use quinine, though Dr. W. D. Rivers, a neighboring physician, had a case near me last summer in which he failed with the ergot, but succeeded admirably in a few hours in producing forcible pains with ten or fifteen grains of quinine.

Quinine as a tonic restorative. We come now to discuss the use of quinine, with which we are all familiar, more or less. I do and have always regarded quinine as one of the best, if not the best, of the bitter vegetable tonics. When given in small doses, from one to two grains thrice daily, it gives tone to the system, improves the appetite, promotes digestion, gives strength to muscles, and in this way acts as a tonic upon the system. Given with some eligible preparation of iron, which restores the deficient red corpuscles, it acts as a most excellent tonic and restorative in all cases debilitated, and associated, from protracted sickness or overburdened by cares, or depressed by mental anxiety.

Idiosyncrasies. I have observed but two prominent peculiarities produced as the effect of the use of quinine—one is the very frequent repugnance the stomach has to its use. I am, myself, one of those whom it effects in this way; it vomits me every time I take it into the stomach if I take it in solution. The other is the peculiar effect it has upon the brain of some of those to whom given. The first one of these disadvantages I meet by giving the quinine in capsules; the other I think can be obviated, to some extent, by giving per enema.

Doses, intervals and modes of administration. You will pardon me, doctor, for getting the thing "sorter" mixed up, which renders my report unmethodical. I never for an adult give under ten grains, and seldom go

over twenty grains in intermittents. I give it just as soon as the paroxysm goes off and the sweating stage begins, and continue until I stop the chills. Then on the 5th, 6th, 10th, 14th, 20th and 21st days, which usually stops them entirely. In the case of remittent, I reduce to an intermittent with quinine, then treat as before (using adjuvants, however).

Method—I give in solution when the stomach will take it. Albumen is a good thing to take it in. Cold coffee is a very good vehicle; but on the whole, when given by the stomach, I think the gelatine capsule the best way of giving it, but when the stomach will not bear it in that way I give it in a solution of starch water, with a little tincture of opium added. If the bowel (or rectum) is too irritable to retain it, I use it endermically in one grain doses.

DR. J. R. HOFFMAN, OF ATHENS.

It is needless to enlarge upon the value of quinine in all the forms of malarial disease. Every practicing physician in the State is familiar with its use in such cases; however, not all of them I find are quite of one mind in regard to its usefulness in malarial hematuria. Fortunately, it may be for my patients, my experience in this disease is not large; suffice it to say, that with liberal doses of quinine in the remissions, and the free use of gallic acid (20 grains every two hours if necessary), during the balance of the day, I have saved all the cases that have fallen under my observation.

A word on the hypodermic use of the remedy. A solution made as follows:

R.—Quinine, two and one-half drachms; hydrochloric acid, fifty minims; distilled water, four and one-half drachms—mix. Dose, five to twenty drops.

Five to twenty minims, for hypodermic use, gives rise to a little smarting, with some swelling and redness of surrounding tissue, but I have never seen it followed by an abscess.

I consider this method very valuable in the gastric derangement so common in remittent fever.

I am in the habit of depending upon half the quantity, hypodermically, that I would be willing to trust in the usual way.

In pernicious fever (congestive chills) the hypodermic use of quinine has not fully realized the enthusiastic anticipations that I indulged in when I first began its use in this manner.

The hypodermic use of quinine is not attended by the danger that belongs to the much more frequently used morphia salt.

I am not yet a convert to the German practice of relying upon heroic doses of quinine in continued fevers, not of malarial origin.

Ninety per cent. of typhoid fever patients recover, taking all methods of treatment, and no treatment in the aggregate, hence a physician might have a long period of time in the practice of his profession ere he met a fatal case, that he could not account for, without suspecting the potency of his favorite remedies; especially if he once in a while forgets one of the con-

fiding victims, whose place in his case-book has been filled for the last time.

In rheumatism I always precede the use of quinine with salicylic acid, and unless I am meeting a malarial influence that may be present in the phlegmasæ, have never been able to answer, satisfactorily, the question, "*Cui bono?*" when I order quinine in these cases, because others give it, or it may be because I do not know what else to give.

There is no doubt about thirty grain doses of quinine reducing the temperature, for a few hours, in continued fevers of various kinds, but I sometimes have reason to suspect that the good effected in this direction has been more than counterbalanced in the distress endured by a nervous patient through the physiological reaction of this potent drug.

Let me suggest here that persons who can not take quinine sulphate on account of its disagreeable and sometimes even unendurable reaction, may, with impunity, use the preparation called Cincho quinine. This is more pleasant to the taste, and, in many cases, quite as reliable as the better known sulphate.

In all stages and conditions of pregnancy, I order quinine without hesitation, when its use is demanded, and if it has ever, in my experience, produced a miscarriage I have forgotten it, or did not have sense enough at the time to suspect my theropia. One of my own children is the subject of an idiosyncrasy, with respect to quinine, that I may as well mention; even a few grains in three hours produce such annoying and intolerable urticaria that I never administer the sulphate. Cincho quinine and cinchonia are both taken by her with impunity.

Dr. N. D. Richardson, formerly an honored counsellor of our State Association, now a prominent and successful practitioner in Nashville, speaks in high terms of the use of quinine in large doses as an antipyretic. He relies upon it as the principal remedy in his treatment of diseases accompanied by high and long sustained temperature, and his success in diseases of this class has been such as to recommend this plan of treatment to the profession at large.

To obviate the unpleasant reaction of quinine I have not found anything so efficient as acid hydrobromic, given in teaspoonful doses to a wineglassful of water, as often as the quinine is given, and one hour or half hour after its administration.

DR. D. S. HOPPING, OF LETOHATCHIE.

1st. In three cases of continued malarial fever recently treated, quinine acted slowly, but gave indubitable evidence of its efficacy. I ignored the apparent typhoid condition, and gave mercurials, well guarded with opiates and quinine, sixteen to twenty grains daily. My patients convalesced in fourteen, sixteen and eighteen days. At the same time, the patients were supported with most digestible diet.

2d. As an ecbolic, *per se*, I think it possesses no such power; it can not originate a parturient contraction. Yet, under some conditions of great

nerve, vascular and mental tension, associated already with threatened abortion, by small doses frequently repeated, such cases are, in my opinion, aggravated. And on the other hand, in conditions of great debility from hemorrhage or other cause, with threatened abortion from relaxation of the muscular fibre through the already enervated nerves that preside over the os, large doses of quinine, by their sedation, increases the relaxation, and thereby hastens the act.

3d. In congestion from chill, its virtues, in heroic doses, are conceded by all. Of this, I do not propose to write, but of "congestive fevers," *per se*—of congestive fever initiated with a chill, which does not return, nor is there a full, free reaction, but is characterized by being frequently repeated, without regard to periodicity; efforts at reaction; efforts repeated time and again at varying intervals of from four to eight hours without reaction being accomplished. (Do you recognize such a fever?) In these, a local congestion of some vital organ exists, which quinine seems powerless to remove; yet perhaps not less impotent than any other drug or remedy.

4th. In malarial hæmaturic fever, I think it the *sine qua non*. The few cases (three) I treated the past season were milder than those I have treated during the past fourteen years—not less than fifty. By their mildness, I was enabled to verify my opinion of its pathology and treatment, to-wit, that it is emphatically a congestive disease, and, as a consequence, paralysis of the nerves that preside over the secreting glands of the liver, and that quinine given heroically is imperative; and it should be continued in use for weeks to prevent a relapse.

5th. As to its toxicological effects, I will give you an illustrative case. While attending Mrs. A. for malarial hæmaturic fever—having for three days given thirty, forty and fifty grains successively to break the paroxysm—after having given the last ten of the fifty grains, she said to me: "Doctor, why do you not have a light in the room?" To my question, she replied that she did not see it. I then carried it very near to her. She still did not see it; nor was she able to tell day from night for forty to fifty hours. In two weeks, her sight was restored. The fifty grains cured her; and though her vision was destroyed for the time, under the same circumstances I should repeat the treatment. I reported this case in an article read before the State Medical Association in Montgomery in April, 1870, and it created quite an animated discussion on the subject of large doses of quinine, some approving and others condemning my full doses. Dr. Ross, being ill of a sore throat, did not participate in the discussion, but in conversation after, he said he did not think her visual symptoms were to be attributed to the quinine. With due respect for so justly distinguished an authority, yet I must think that if it will, as is conceded by all, affect one special sense, the hearing, why may it not another, the sight?

In pneumonia. During January, 1857 (being my first year's practice in the State), I was called to see Thomas R., a lad of fourteen years, who, previous to this attack, was the very picture of robust health. I found him ill, very ill, of pneumonia, dyspnœa extreme. He could neither lie down, sit up, nor stand up, and was in imminent danger of dying at any moment for the

want of breath. The time for action was at hand. What must I do? Watson said bleed. I called for a cord. The family opposed; but I had said the horse was sixteen feet high, and I stood to it like a man. I bled—the only one for pneumonia during thirty years practice—and had the satisfaction of seeing a decided improvement in two or three hours time. But my patient was yet in great danger. The physical and rational signs for pneumonia were plain and unmistakable over a large space in both lungs. I remained through the night, watching with painful anxiety. About two o'clock, I perceived, by pulse, temperature and respiration, an amelioration. I gave a dose of six grains of quinine, intending to repeat it at four o'clock; but the fever again increased, and I then thought it could not be repeated. During the next day, the calomel acted well, and some improvement was manifest, but the fever was still too high for quinine. I remained the next night. The remission was sufficiently prolonged to give two doses of quinine. The next night I gave four doses, and from that time the convalescence of my patient was assured and progressive. He was up in twelve days. This I regard a typical case of pneumonia, as seen in our malarial section; and by close watching, I found the key, the remission, by which I have unlocked every case save three since that time, embracing a period of twenty-five years of active practice. I do not, however, intend to include three and one-half years service in the Confederate army.

That remission comes, though it would pass unperceived by nine out of ten nurses, although they had been cautioned to watch for it, in cases of this exceptionally severe character; and so they will in many cases less severe. It comes nine times in ten between twelve o'clock at night and eight o'clock in the morning; and having in the outset given a dose of calomel, guarded with opiates, I am then ready for the remission with quinine, sixteen to thirty grains for adults, repeated daily, to forestall the exacerbations.

I have excepted three cases, one of which was complicated with measles. The other two were of such extreme congestion that at that time to me heavy doses of forty to forty-five grains during the intermission were not sufficient to remove it.

As I said before, I have bled no other case of pneumonia. In the case just given, I thought it imperative, and under the same circumstances, I would repeat it.

Despite the volumes that have been written against mercury, we yet know it does act on the liver, and no substitute has yet been found for it. Besides, there is no channel by which the lungs can be so powerfully or directly depleted as through the liver.

DR. W. H. JOHNSTON, OF SELMA.

In reply to your communication as regards the therapeutic use of quinine, the following is my experience:

Under your first head, I think and have found no remedy superior to

quinine in intermittent, remittent, and pernicious fevers. I do not think it has any marked effect for good in hemorrhagic fevers.

Under the second head, I have found it of marked benefit in malarial neuralgias, where there was a well marked periodicity.

Under the third head, I have not found it to cut short any of the continued fevers, but think it more valuable than any other remedy in conducting those cases to a favorable termination, by preventing the fever from exhausting the patient.

Under the fourth head, I have used it with marked benefit in diphtheria, measles, and scarlet fever, but only in antipyretic doses.

Under the fifth head, I have used it with the happiest results in pneumonia, in one large dose, repeated in twenty-four or forty-eight hours, if the fever is not controlled.

Under the sixth head, I have used it a great deal as an antipyretic, and know no remedy that is as safe and certain. I have never seen any deleterious effect from it in antipyretic doses. I think it has but little effect as an oxytocic. I have seen urticaria caused by it, and also intense nausea and vomiting.

DR. CAPERS C. JONES, OF SNOW HILL.

In reply to yours of January 25th, I take pleasure, although late, in giving some of my experience in the use of quinine for the past thirteen years in the treatment of disease. I shall answer your queries by the numbers, and briefly:

1. The use of quinine in malarial fevers. My experience but corroborates the accumulated experience of the profession as to the incalculable value of quinine as a remedy in all malarial fevers, the hemorrhagic types not excepted. I should feel criminally responsible should I loose a patient with hemorrhagic malarial fever in whom I had not freely used quinine.

2. In malarial maladies, not to be dispensed with, dysentery, neuralgia, and bilious colic, being most generally associated with a malarial taint, quinine is a valuable adjunct in their treatment.

3. In continued fevers, etc. In my hands of no service save as an antipyretic or tonic, then only to modify the symptoms, not cutting short the disorder.

5. In phlegmasia, etc. I use it in the latter stages mainly for the tonic and equalizing effect on the circulation. I find it indispensable in the asthenic type of pneumonia with carbonate of magnesia.

6. As an oxytocic. If by this term is meant, as Dunglison defines it, "a remedy to promote delivery," quinine acts as such. But if to originate contractions of the womb, I should say emphatically not an oxytocic. I do not hesitate to administer quinine in pregnancy when needed, never seeing any but the most beneficial results, and am persuaded that abortions frequently result from a failure to use it. I have obtained excellent results from its use in full doses in cases of tedious labor and uterine inertia.

As a tonic and restorative, there is nothing superior and few things equal.

In some, idiosyncrasies interfere materially with its use, often causing urticaria erythema, distressing headache, nervousness, etc. These I frequently overcome with a combination of the bromides or gelseminum; but have found the dextro quinine to answer as a substitute in many of these cases, producing all the good and none of the bad effects of the sulphate. Dose—As a tonic, one to three grains, three times a day. As an antiperiodic, four to six grains, at intervals of every two or three hours until eighteen or twenty grains are taken, or one full dose of ten to twenty grains, some two or three hours before the paroxysm or exacerbation. This latter plan, recommended by Bartholow and others, grows in favor with me.

As an antipyretic, I use a dose of twenty grains every twelve hours until the desired effect is produced. My favorite mode of administering it is in capsules or cold water. Nitre (sweet spirits) is an excellent solvent, but don't improve the taste much.

One case in illustration of the good effects of quinine in malarial maladies, and I am done. Wm. S. White, age forty-two, good liver (and usually a torpid liver), constipated habit, subject to occasional attacks of bilious colic (so called), residing on a healthy ridge, but farming in a swamp, drinking ditch and pond water, spending all day on the farm and sometimes coming home after night, is taken suddenly (sometimes has premonitions) with severe cramps in stomach and bowels, occasional vomiting, bowels constipated, no fever; administer morphine hypodermically, relieved shortly; give a mercurial purge, assisting its action by an enema; rest very well for twenty-four hours, when another paroxysm recurs as aggravated as the first; relieved by hypodermic morphia. I insist on treatment during the interval, as I did at first, diagnosing malaria as the exciting cause; patient begs off, don't want to be disturbed; another twenty-four hours and another paroxysm; patient becomes submissive, give a full round of the "old reliable quinine;" no more trouble, and a pleasant recovery.

DR. GEORGE E. KUMPE, OF LEIGHTON.

The uses of quinine in malarial fevers, intermittent, remittent, hemorrhagic and pernicious. The usual dose I give to an adult in intermittent and remittent fevers is twenty grains divided into three doses, given at intervals of one or two hours, as time may permit. If time permits, I precede the administration of the quinine by a mercurial cathartic, and not unfrequently combine the quinine and mercurial when pushed for time, and have had almost invariably excellent results from the combination.

In hemorrhagic malarial fever, I look upon quinine as indispensable, and endeavor to bring my patients as speedily as possible under its influence, and if the stomach is too irritable to retain it, I give it by enama in a thin solution of starch, and find that plan to answer an excellent purpose.

In pernicious fevers, I generally double the quantity of quinine from what I would give in intermittent fevers.

In the two latter forms of fevers, I often give quinine hypodermically and with excellent results, never have abscesses to contend with, which I ascribe to two precautions. I invariably adopt, namely, first, to have my solution as near as possible neutral and well filtered; and, secondly, to thoroughly wash out the syringe with warm water immediately after administering a dose hypodermically, a failure of which will permit the evaporation of what remains in the needle of the syringe and its consequent recrystalization, and hence the easy introduction of quinine crystals, which is thought to be the chief cause of abscesses. This may seem a trivial matter, yet in my humble judgment, the failure to observe scrupulous cleanliness in the management of the hypodermic syringe is a prolific cause of abscesses resulting from the hypodermic administration of quinine.

2. Uses of quinine in other malarial maladies, such as dysenteries, neuralgias, bilious colics, etc. In the great epidemic of dysentery which swept over this country in the summer and fall of 1852, the administration of quinine at an early stage of the disease was of immense value in assisting promptly in relieving all the symptoms and favoring convalescence, and I am fully convinced that much of the fatality of that epidemic was due to the malarial factor in it.

In the various forms of malarial neuralgias, I have used quinine with very satisfactory results in many cases, yet failures are not of unfrequent occurrence, calling for other and more powerful means of relief.

3. The uses of quinine in continued fevers, and the *quasi* continued fevers, such as typhoid fever, typho-malarial (so called), mountain fever, gastric remittent fever of children, continued malarial fever (so called).

In typhoid fevers and typho-malarial fever (so called), I limit the use of quinine as a tonic in the latter stages of the disease, except when used as an antipyretic, of which mode of administering quinine in these fevers I have the very highest opinion, having obtained better results from it than any other mode of treatment. If towards the close of the third week of typhoid fever, the evening exacerbations are still attended with a high rise of temperature, and the use of the cold water by means of the pack has failed to make any permanent impression for the better, I administer to an adult forty grains of quinine in five eight grain doses, to be given when the exacerbation is at its height, at intervals of fifteen minutes, until all is taken. Almost invariably in two or three hours the patient falls into a quiet natural sleep, which usually lasts from five to six hours, and on awakening from this sleep the temperature will be found altogether, or very near normal, and the pulse also much reduced in frequency. Not unfrequently during the sleep following an antipyretic dose of quinine, a gentle perspiration, perhaps the first during the progress of the fever, will be observed, sometimes the temperature will never after reach its former height, and should it do so, the dose may be repeated in forty-eight hours, when usually a permanent improvement will better the result, unless there are some complications present. I have noticed that in the earlier stages of the disease, the good results of antipyretic doses of quinine are not so near marked as at the time above indicated. I think much of the success of

antipyretic doses of quinine is due to the manner of administering the drug, that is, at short intervals, so as to obtain the cumulative effects of it, which it is impossible to do if given at intervals of an hour, or even half an hour. With an experience of over ten years in the administration of quinine antipyretically, I have never had any permanent unpleasant results to follow. Cinchonism will subside as readily after it as when given in antiperiodic doses.

4. The use of quinine in various zymotic diseases, such as yellow fever, dengue, septicæmia, diphtheria, cerebro-spinal fever, small pox, measles, scarlet fever, etc. In yellow fever and dengue, my experience has been very limited, and does not amount to much.

In septicæmia, I am in the habit of giving quinine freely, more for its tonic effect, however.

In diphtheria, I prescribe quinine for the same purpose, and deem it of great importance.

Cerebro-spinal fever, as it usually presents itself in this country, is greatly influenced, and not unfrequently due to malarial causes, and hence I deem the administration of quinine in antiperiodic doses as indispensable.

In small pox, measles and scarlet fever, I give quinine only as a tonic during convalescence, deeming the administration of quinine in any other way as useless, those diseases being self-limited.

5. The use of quinine in rheumatism, pneumonia, bronchitis, pleurisy and other phlegmasia, and other diseases not mentioned by name. In acute inflammatory articular rheumatism I have known the administration of antipyretic doses of quinine followed by most excellent results, considerably lessening the fever and the pain and swelling of the joints. In pneumonia I have succeeded in making a decided, favorable impression, when all other remedies had failed, by the administration of antipyretic doses of quinine. In bronchitis and pleurisy I have not used quinine to any extent. But there is one inflammatory disease in which I have used quinine antipyretically, of which I have seen no mention made anywhere, namely, erysipelas—I mean simple inflammatory erysipelas. I will give you, briefly, the first case in which I tried it, and the result.

In May, 1878, I was called to see Dr. B. O. Masterson, of Lawrence county, aged 54 years, who had been afflicted with erysipelas for seven days. I found him in the following condition: The disease covered the whole of his face, scalp and neck, the right hand to half way up the arm to the elbow, the left hand to above the wrist, and a spot as large as a breakfast plate on the back below the shoulders, and a small spot on the front of the chest. I arrived at his house at 12 m.; found his pulse 106 per minute, and his temperature 102 4-5ths; tongue heavily coated, suffering with headache, insomnia, restlessness and despondent. He had taken a variety of remedies, mercurials, quinine in small doses, and iron; also made various local applications to check the progress of the inflammation without any benefit. I was told that he had a decided exacerbation every evening, beginning about noon and reaching its highest point about 8 p. m.; I remained with him until 3 p. m., when his pulse had risen to 114 per minute, and his temperature to

103 4-5ths, very much depressed mentally and moaning with every breath. Having no inclination to take food he was very feeble, and I felt that something had to be done promptly, the usual means having failed to make any impression on the disease. I decided to give quinine antipyretically a trial, having obtained good results in other inflammatory diseases. Accordingly I weighed out five doses of quinine of eight grains each, and directed the son of my patient, who was also a physician, to begin to administer it when the exacerbation was at its height, and give it every fifteen minutes until all were taken. In about two hours after taking the last dose the doctor fell into a quiet, natural sleep, which continued without interruption for nearly seven hours; on awakening his temperature was normal and pulse eighty to the minute. On my visit the next day I found my patient sitting up in bed with a smiling countenance (as far as his disfigured face would permit), his pulse eighty and his temperature normal, and a most noteworthy fact was presented in the œdamatous swelling, which, on the previous day, was tense and shining, but now was shriveled and placid. The disease seemed to be completely subdued; my patient had no more fever, no further extension of the inflammation, and under the use of tonic doses of quinine and iron made a rapid recovery. This result, of course, encouraged me in trying the same plan of treatment in other cases, and since then I have tried it in four cases of erysipelas with like results, in every instance one course of quinine antipyretically administered proving sufficient to check the disease.

From what I have written you will see that I am an advocate of quinine as an antipyretic, deeming it of great value in all forms of fever of a continued type, and in inflammatory diseases, and to the contrary what may be said against it, unless my clinical experience shall be otherwise than it has been, I shall continue its use until something better is discovered to supplant its use. I think that much of the want of success in the hands of some of the opponents of the antipyretic use of quinine is owing to the fact that they do not give the remedy at sufficiently short intervals to bring the system fully under its influence, and, therefore, do not obtain the best results. I will here mention that I have seen no unusual toxic effects follow the antipyretic use of quinine; cinchonism is usually very marked, but passes off as readily as if the drug had been given in antiperiodic doses. Altogether, in a practice of thirty-eight years, I have not seen a single case of serious tonic effect from quinine; I have only seen one case of prolonged deafness in an old man, which did not amount to entire deafness; it was only necessary to elevate your voice somewhat to make him understand.

I have met with a peculiar idiosyncrasy in a family, two brothers being affected alike, in whom the administration of even as little as one grain of quinine would produce hæmaturia, and copiously so, one of whom I have known and frequently treated for twenty-five years, still retains the same susceptibility to quinine, yet he can use chenoidine without any unpleasant effect.

Quinine as a tonic and restorative stands unrivalled among its kindred medicines, as being more prompt and efficacious than any other.

I do not know whether it would be prudent to say anything in a public

way on the subject about which I would say a word, but I feel satisfied from twenty-five years experience and observation, not only of myself but many others whose attention I have directed to the matter, namely: that there is a difference in the quality and efficiency of different articles of quinine; I believe that Rosengarden & Sons' quinine is superior to Powers & Wightman's. I think fifteen grains of the former equal in effect to twenty grains of the latter. A comparison, simply by the eye, will show a striking difference between the products of the two manufacturers.

In regard to the mode of administering quinine, I unhesitatingly prefer giving it in solution; my experience has taught me that quinine given in pills not unfrequently passes through the alimentary canal without being dissolved, and it is easy to see what serious results may follow, hence I almost invariably give it in solution.

DR. J. D. KUMPH, OF PEROTE.

Though abundantly inclined to answer the questions propounded in your circular to the best of my ability, I will have to plead as an excuse, the want of time and strength. To go back and search out what my experience has taught me in over forty-five years of practice, would truly be a herculean task to one of my age. But I will endeavor to do the best I can under all the circumstances. I will give you what came, more from memory than statistics, or even from my own records of daily practice.

1st. Quinine in what is termed malarious intermittent and remittent fevers, has always acted with me as a specific, unless complicated with some other disease. In hemorrahagic and pernicious diseases, it has proved decidedly injurious, especially in the former, by aggravating the bloody discharge, and in the latter, by depressing nervous action.

2d. In dysenteries, neuralgias and bilious colics, it is always beneficial when properly timed, and well regulated.

3d. In typhoid, quasi typhoid, and typho-malarial fevers, it is a doubtful remedy unless given in the initatory stages. When thus given, I have seen it act promptly in some cases, by giving large doses, say twenty grains twice or thrice in twenty-four hours. In mountain fevers, I have had no experience. In gastric remittents of children, have seen no good effect until the gastric trouble is removed. In continued malarial fevers it is generally successful, if duly persevered in.

4th. In zymotic diseases, my experience is too limited to express an opinion founded on facts. I allude, however, in this, to yellow fever, dengue, &c. In septicæmia and diptheria, I have seen no good results; but in cerebro—spinal fever it acts well. I have no experience in small pox, as I never gave it, and have never seen it given. In measles and scarlet fever, it is a good adjuvant, particularly where the fevers are high, when it will certainly lessen the exacerbations.

5th. In rheumatisms, pneumonia, bronchitis and pleurisy, it will always do good in certain stages and where there are no complications of import-

ance. The same may be said of it in whooping cough, and all bad colds and catarrhs attended with high fevers, if carefully given and timed properly.

6th. As an antipyretic, there is no doubt of its action, as thousands of instances have demonstrated.

Physiological reactions on the blood, &c. When large doses of quinine are given, I refer you to the analysis of the blood of patients, drawn whilst under the influence of quininism.

Toxicological effects, if not greatly abused, by inadvertency or carelessness and ignorant administration, I can scarcely conceive that it ever manifests itself as a poison. I have never seen the use of it attended by any serious consequences.

As an oxytocic, I do not believe it possesses any such effect; as a tonic and restorative, no medicine in the materia medica has proved itself more conclusively to act in this way, and I feel that it is the sheet anchor of our hopes and triumph of our profession when given as such; and there are but few diseases in which it may not be so used, both in the extremes of old age and youth. I have used it as such, with good results, in consumption and scrofulous diseases—curious idiosyncrasies.

I have had some cases in which quinine could not be tolerated, and other medicines had to be substituted. I never discovered the cause. In such cases I generally tried the effects of cinchona bark with good results. Do not recollect a single case of intolerance of the bark, though it would sometimes produce nausea and vomiting, which, however, was easily managed.

7th. To illustrate the numerous cases of quinine treatment, would fill a volume, and certainly can not be contemplated in this resume.

DR. W. A. MAYES, OF MIDWAY.

I commenced practice in Floyd County, Georgia, in the first settlement of that country. The decaying timber and clearing up large bodies of land and exposing its surface to the sun, brought about in a year or two almost a universal prevalence of intermittent and remittent fevers—followed in two or three years with a large number of cases of typhoid or continued fevers, together with pneumonia and rheumatism. Quinine was our great remedy in the treatment of these diseases. It is true it was not all the remedy that we used, but it was our main reliance to break them up, and when it was judiciously used it never failed me, when it was possible for remedies to succeed. Quinine was a remedy I could rely upon when there was any hope to do anything.

I have used quinine in all grades of malarial fevers with better results than any other remedy.

In treating the pernicious or conjestive form of fevers in this country, particularly among children and youths, it is the main reliance. I use it in combination with dovers powders and calomel, until the bowels are moved, and then drop the calomel, and continue the quinine and dovers with warm applications to the bowels, and not cold. If I get to see them before they

become comatose with the third paroxysm, I almost always succeed in curing them—it is an indispensable remedy in this disease. I use it in tonic doses during convalesance, and to prevent relapses. In our typhoid fever, so called, I use quinine in connection with other remedies during most of the treatment of the disease, not with the expectation of regulating the disease, but for its calming effects and assisting to equalize the circulation, and for the power I think it possesses in controlling disease that I am not able to describe, but which I think I realize in my work among the sick. Do not think that I am over zealous for its use. I try to use it judiciously, and if I see that it is doing harm or no good, I suspend its use immediately.

I have used quinine in acute rheumatism in combination with opium and calomel, with the best of results, and in chronic rheumatism I use it with iodide potash with a certainty of relieving my patient. Its use as an oxytocic in certain conditions, in my hands, has been very beneficial in all irritable subjects, pains, inefficient cutting, wearing out the patient without any apparent progress, with a rigid condition of the os. In such cases I give a full dose of quinine and morphine, and it seldom fails to have the desired effect.

We have an epidemic of measles in this section now, and I find quinine an excellent remedy in treating the disease. It acts as a febrifuge, and in combination with an opiate it assists greatly in controlling the cough, and when the eruption is slow to make its appearance, it assists in bringing it out.

Quinine is a remedy, I think, that comes nearer being a universal one than any in the materia medica, therefore it is often abused; and there is no doubt that too much of it is used by the common people. Quinine is one of our greatest remedial agents, and I would be at a great loss to know what to use in its place, for there are but few maladies but what, during their progress, we find a use for quinine in treating them. In conclusion, I would say that I have almost universally obtained the best effect from quinine when combined with an opiate of some description. When the idiosyncrasy of the patients was such that opium disagreed with them, the addition of quinine made them tolerate it, and the benefits of both were augmented.

DR. GEO. W. McDADE, OF MATHEWS' STATION.

I received your circular letter some time since, and am ashamed that I have delayed so long in contributing my mite. My object now is not to make an elaborate report on the uses of quinine, but to state that in this prairie country, known as the "black belt," that nearly all the diseases which I am called upon treat are of a malarial origin or complicated with malaria, and with the exception of typhoid and typho-malarial fevers, I use quinine advantageously. In the diseases mentioned, I have found no benefit from it. I have never used quinine as an antipyretic; using it as I do, in two to five grain doses, and very seldom exceeding fifteen to twenty grains in the twenty-four hours, have had no unpleasant effects; therefore,

of its toxicological effects, practically, I know nothing. I do not believe that quinine possesses any oxytocic properties, unless abused. I have used it in all cases of pregnancy, whenever it was indicated. In one case only, in an extensive country practice of twenty years, have I had any fears about administering it. This occurred very recently. When not pregnant this lady would be as thoroughly cinchonised by five grains of quinine as the majority of patients would be after taking fifteen to twenty grains. She attributes its unpleasant effects to the excessive quantity taken and used by inunction years ago, during an attack of hæmaturia, known here as yellow disease—in Louisiana as swamp fever—but I think it an idiosyncrasy. In this case, after failing to relieve her paroxysms of fever by other means, I gave her four grains of quinine in two pills. She complained so much of cinchonism on the following day, that I determined to use it by inunction. Five grains rubbed in over the body and limbs, produced the same unpleasant effects. I therefore had one grain rubbed in morning, noon and night. After the third day I administered one grain three times a day per orem. At no time while cinchonised, were there any uterine contractions. She was in her eighth month, and I am now expecting a call to attend her at any moment. This case and my past experience fully demonstrates to my mind, that quinine will not produce an abortion if judiciously administered. In large doses it may produce it, on the same principle that many other things do, *i. e.* by the shock to the nervous system.

I wish to call your attention to a plan of treatment which I have used for six or eight years, which proves to me another use of quinine, not referred to in your letter, which I consider very important. The plan is original with me. Immediately after delivery, I prescribe:

Hydr. chr. mit., two grains; pulv. doveri, ten grains. Mix and divide into two powders.

Give one in an hour or two after delivery, and the other at bedtime. Move the bowels the following day. Also—

Quinine sulphate, ten to fifteen grains; pulverized capsici, one and a half grains. Mix and make into six pills. Take two pills two or three hours apart, beginning early the next morning. Give the quinine for three days.

This use of quinine has proved so beneficial in preventing the milk fever, and I have no doubt in many cases puerperal fever also, that I can recommend it to the profession. If you think this communication of any value, use it, if not, throw it into the waste pile.

DR. F. S. McMAHON, OF COURTLAND.

I have the honor to make the following report on the therapeutic use of quinine.

1. On its use in malarial and intermittent fevers. My usual practice is to give quinine freely in intermittents so soon as I see the patient. As soon as the fever cools, or where there has been a previous paroxysm, or

where the febrile symptoms are high, or where there is doubt as to the type, *i. e.* whether intermittent or remittent, I begin its administration at once, in doses of ten to twenty grains, and continue every hour in doses of five grains until the patient is fully under the influence of the quinine, as evidenced by reduction of temperature, tinnitus aurium, etc. If fever is high, I use tincture aconite in small doses, at short intervals, sponging freely with cold water, and where there is much cephalalgia, using cold effusion. I have also obtained fine febrifuge effects from nutral mixture or effervescing draught in ice water, to which tincture aconite in doses of three or four drops may be added. But I prefer the tincture aconite in smaller doses, one to two drops every half hour or hour. My main reliance is, however, on quinine given at first every hour to control fever. I have rarely had to give more than four doses of ten to twenty grains, five grains as soon as fever subsides. The second and third days I administer five grains, two hours apart, to prevent a recurrence of the fever, and am seldom troubled with another paroxysm.

Remittents. In remittents, I give quinine more periodically, if possible, than in intermittents. Beginning its use immediately, I have diagnosed the case. In this disease I especially deprecate the old custom of waiting "to prepare the system" by cathartics and reducing the fever before giving quinine. Where a cathartic is necessary, give it after the fever is controlled. A very usual practice of opening the primæ viæ with me, is the administration of calomel in one grain doses, or calomel and sodium bicarbonate in doses of one grain each, repeated every hour until four powders are given, administered sprinkled dry on the tongue, washed down with a draft of water. Catharsis in eight to ten hours, one, two or three mild but sufficient actions, is almost certain. Should the desired effect not be produced, the solution of citrate magnesia, or a seidlitz powder, is all that will be required. In my practice on the government works, on Muscle Shoals Canal, I have found two compound cathartic pills, U. S. P., a reliable cathartic. In this type of fever, as in intermittents, I give quinine in ten to twenty grains, every hour for four or five doses, according to degree of fever, being guided by the thermometer rather than by the pulse or the heat of the skin, every hour until the fever is controlled. After waiting six or eight hours, I continue quinine in five grain doses, two hours apart, for four or five doses, and this practice I continue for two or three days; my experience being that unless you keep the system fully under the influence of quinine for forty-eight hours, after the paroxysms have been controlled, that the fever will return. This is especially true in intermittents. In both forms I allow cold or iced water freely.

Hemorrhagic malarial fever and pernicious malarial fever. On that I have written in regard to the early and prompt administration of quinine in the other forms of malarial fevers, is especially true in these formidable types of disease. In no other forms of malarial fever is a more heroic use of quinine indicated. In these diseases it is the sheet anchor, and all other remedies are, in my opinion, but secondary. The nausea so characteristic of remittents, and frequently occurring in hemorrhagic malarial

fever, I deem it important to relieve, and have often succeeded with morphia in hypodermic injection, or given in mucilage (disguised with lemon syrup, with the addition of a drop or two, to the dose, of aromatic sulphuric acid), in one-eighth grain doses.

In pernicious fever, I consider quinine so indicated and so necessary, that it should be given hypodermically and per enema. If given by the rectum, I have never found less than forty to sixty grains to do any good

2. In other malarial diseases. Bilious colic. I have never used quinine.

Neuralgias. I believe quinine to be as much indicated in neuralgias as in malarial fevers, and that when the pain has been relieved by morphia, atropia, or other narcotics, that quinine is imperatively indicated. And, indeed, given in combination with morphia, it is one of our best means of relief in these painful affections. My experience is, that the remedy must be used in large and frequently repeated doses. In the various forms of neuralgia, and in chronic intermittents, I have derived the best effects from quinine, given in combination with arsenic and strychnine. The strychnine I give in one-sixteenth to one-thirtieth of a grain. The arsenic (arsenious acid when in pillular form), in doses of one-sixteenth to one-twelfth of a grain, the quinine in two to five grain doses, given "ter die." Frequently I give the arsenic in the form of Fowler's solution, in five to ten drop doses, "ter die," and after meals. Very often I add morphia, when I give these remedies in a pill form.

In dysentery I have generally succeeded so well with the saline treatment, (sulphate of magnesia incamphor water,) until bowels act, then followed by opiates, to keep the bowels as it were in "splints," that I have not usually required other treatment. But I believe quinine to be frequently indicated, and have occasionally used it and with good effect.

3. In typhoid fever, I do not recollect ever to have cut short a case by quinine. In 1858, in the wards of the Charity Hospital in New Orleans, I saw several cases under the quinine treatment in the service of Dr. E. D. Fenner, then Professor of Practice in the New Orleans School of Medicine. Leaving New Orleans before these cases died or recovered I did not witness the result of the treatment. But twenty-five years ago, as now, this treatment had its advocates. While it was contrary to the teaching of my preceptor, Dr. Gerhard of Philadelphia, and has been contrary to my experience, I will state that I never had a case of typhoid fever in which I did not use quinine and in decided and frequent doses, at least until the characteristic symptoms, dry red tongue, sordes, tympanitis and continued fever presented; for it has ever been difficult for me, as for others, to diagnose between remittent fever and typhoid in the early stages of this disease.

In typho-malarial I have had but few cases, and most of those I lost; but in these cases I gave quinine freely, and considered from the symptoms that it was indicated. Most of my time, half of it at least, has for the past three years been taken up in the practice on the Government works, on the portion of Muscle Shoals canal lying in Lawrence county, on the Tennessee River. I had no cases of the typho-malarial fever on the works, and but few in my other practice.

In gastric remittents of children, I have used quinine. My practice has ever been, from my hospital experience in New Orleans in 1857 and '58, to give quinine in large doses, notwithstanding my previous training in Philadelphia when it was not, in 1855–56–57, the practice to use it so freely as in New Orleans.

4. I have never had a case of yellow fever nor of dengue, and but one of diphtheria, and that while in Kentucky in the Confederate States Army, just before the battle of Fishing Creek; and but one case of small-pox. But in any disease where there was any periodicity, I would consider quinine indicated, and would not hesitate to resort to its use, the more so as I believe it an antipyretic, and that it will lower the temperature. But in none of the diseases of this class have I had any experience except measles, scarlatina, and a few cases of cerebro-spinal fever. In the latter I used quinine—I only mean one case of cerebro-spinal fever. In that I was consulting physician. I thought quinine had a good effect.

5. In rheumatism I have used quinine freely and with good results, especially when given when salicylic acid or salicylate of sodium is also given. This has been the most successful treatment of rheumatism in my experience.

In pneumonia, in connection with blisters applied very large, and the earlier the better, I always use quinine. This mode of treating pneumonia with quinine and blisters is the usual treatment in this county. Indeed, as soon as we are called into a case, where we detect by the physical signs any pneumonia, we apply a blister and a large one, covering the affected side, and resort to quinine and solution of carbonate of ammonia. Dr. Sykes, Dr. Newsum, and I believe Drs. Kumpe and Crow, and, I might say, every doctor nearly in Lawrence county, pursue this practice.

In one other disease, croup, have I had the best result from and invariably use quinine. When called to a child with croup, I relieve the paroxysms with two grain doses of Turpeth mineral, the yellow sub-sulphate of mercury, repeating the dose in fifteen minutes if emesis is not produced. Should any other emetic be required I give alum or syrup of ipecac. But the Turpeth rarely fails to produce emesis, and that more quickly and without the nausea and prostration of other emetics. So soon as the child is measurably relieved, I begin with quinine and Dover's powders, which I keep up for a day or two, giving it so as to have the child under the influence by or before time of night (or day) when at first attacked.

I have had little experience with quinine as an oxytocic, but incline to the opinion that it produces such an effect. A marked idiosyncrasy in my own case is the production of eryethema or urticaria, from even the smallest dose of quinine. In several others have I noticed these peculiar symptoms produced by quinine. The effects in my own person are distressing, producing the most violent itching pain and heat and redness, intolerable nausea and cramp. In North Carolina, just before the surrender of General Jos. E. Johnston, besides these symptoms, my pulse went up to 140, was weak and fluttering from the effect of thirty grains within six hours.

DR. JOS. MOODY, OF BRIDGEVILLE.

Quinine—its uses therapeutically. 1st. Malarial intermittent—adult dose, five grains every two hours, commencing with the sweating stage, giving ten to twelve doses specific.

Malarial remittent—in five grain doses every two hours during the intermissions, breaking the fever on an average in five or six days. But in antipyretic doses, with temperature five to six and a half, I have frequently crushed the fever with one single dose, fifteen to twenty grains, therefore am very partial to antipyretic doses in remittent fever.

Malarial hemorrhagic. During the first stage, (that is of active congestion of the chylopoietic viscera,) I never use quinine, not until I am thoroughly satisfied, both from emesis and purgation, that the stomach and bowels as well as the liver are entirely cleansed of all effete matter. This I encourage by copious libations of warm water, &c., after which quinine in antipyretic doses, with other adjuvants, has always given me fine results as to cures.

Malarial pernicious. My standing rule is to bring the patient as rapidly under the influence of quinine as possible, and maintain that influence sufficiently long to prevent another paroxysm. To meet this end the stomach, rectum, hypodermic administration and inunction, in the order enumerated, usually suffices.

2. Malarial maladies—dysenteries, neuralgias, bilious colic, &c. I have long since found out, from practical experience, to satisfactorily cure these disorders, quinine in decided doses was required, and its influence kept up until the disease had entirely subsided, tonic doses being required throughout convalescence.

3. Continued fevers. At the beginning of this class of fevers I use quinine either in antiperiodic or antipyretic doses, first to eliminate any malarial complication; second, to test its power in breaking up the fever. In typhoid fever I have had an abundant opportunity to test its merits, as this disease has come largely into my practice for the last two and a half years, and I am sorry to say it has not given me satisfactory results. I never saw any good derived from quinine in antipyretic doses. I have frequently reduced a fever one and a half and two degrees with the above mentioned doses for a few hours, but the cerebral disturbance, and other unpleasant effects, coupled with the rebound of the fever to as high, and in many instances higher thermal point, than the fever had reached before I gave it, has led me to abandon its use in this disease, save only in tonic doses, say two grains three times a day, which I generally prescribe as adult doses.

Gastric remittent of children, quinine is indispensable. Should the stomach not tolerate it, which is frequently the case, I use it, and that very satisfactorily too, by inunction.

4. Zymotic diseases—septicæmia, in tonic doses; diphtheria, tonic doses; cerebro-spinal fever, antiperiodic and antipyretic doses usually give me good success, especially of malarial etiology. Measles. I have used quinine with good results where there was a tendency of the disease to "settle" on the lungs, stomach and bowels, in antiperiodic doses.

5. Rheumatism is at times very much benefitted by quinine; at other times no good results accrue from its use.

Pneumonia. I always use quinine in this disease, either in antiperiodic or antipyretic doses; have frequently aborted this disease, in its first stage, by decided doses of the drug; seen happy results grow out of antipyretic doses in the second stage, reducing the fever and other unpleasant symptoms, to the great relief of the patient.

Bronchitis. In the first stage, that of bronchial engorgement, have frequently aborted the disease by giving fifteen or twenty grains of quinine at bed time.

Pleurisy. Unless the disease is seen in its first stage, quinine will not accomplish much. In this stage, it has frequently been aborted by a large dose of quinine and counter irritants. I use it, however, in tonic and antiperiodic doses throughout the disease most generally.

Phlegmasiæ. In nearly all the phlegmasiæ, I use quinine, either in one or the other of its doses, according to circumstances, &c.

As an antipyretic, in remittent fever, and other fevers of a malarial origin, quinine in the above mentioned doses generally gives me great satisfaction; very little satisfaction in most other diseases, though I remember once to have seen in consultation a case of metro-peritonitis arrested by a large antipyretic dose of quinine (thirty grains), but it came near taking the lady's life, however; but in twenty-four hours after the quinine had been taken, she rallied without any further trouble, her metro-peritonitis having been expunged by the excessive dose of quinine she had taken.

Physiological reactions. The nervous, circulatory, digestive, muscular, and genito-urinary systems each must be looked at, to fully appreciate the physiological effects of quinine in the animal economy. And first of all, the nervous system displays the greatest amount of unnatural phenomena under the influence of this drug, to-wit, convulsions, prostration, tremor, deafness, blindness, &c., are some of the morbid phenomena I have seen traced to the use of this drug; cardiac stimulant, with rapid circulation, cerebral congestion, &c.; cardiac depression, great prostration, &c.; digestive stimulant and promoter of assimilation; a fine tonic in most cases to tone the muscular structure of the bowels, to combat torpidity and costiveness; also, a stimulant of the glandular system of the digestive organs, in some cases nauseant and depressant, producing a perfect loathing for food, acting in small or tonic doses on some persons as an irritant, while in large doses it is sedative, relieving nausea when other remedies have failed.

Muscular system. Tremor and debility, genito-urinary, antiophrodisiac, ovarian irritant, cystic irritant, and hæmituric, &c.

Cutaneous system. Urticaria, roseola, &c.

Toxicological effects. In some temperaments, quinine I have seen produce convulsions, "only in children." Its toxic effects on the special senses, I have seen very marked, producing functional, and in some few instances almost complete deafness, temporary blindness, and other functional organic derangements, that were as toxicologically conspicuous as the toxic effects of other drugs acting on the system.

Oxytocic. Quinine on some uteri, is an irritant during gestation. This I have learned from practical experience with the drug, giving it to pregnant females to arrest malarial fevers, abortion, and miscarriage resulting therefrom.

Tonic and restorative. As a tonic, in small doses, one or two grains, quinine is one of our best agents. Restorative, by improving the assimilative organs, &c.

Idiosyncrasies. Urticaria amaurosis and deafness.

Doses, from two grains to twenty grains. Intervals, tonic dose three times a day; antiperiodic dose, five grains every two hours; antipyretic dose, twenty grains twice or three times a day.

Administration—Whiskey, ginger tea, cold water, water and mineral acids, pill, and capsule.

DR. THOMAS W. PIERCE, OF KNOXVILLE.

In reply to your circular of January 25th, I will offer you a few remarks, the result of my experience for twenty-five years, and in doing so, I will endeavor to be as concise as possible.

I consider quinine one of the most important remedies we have; in fact, it is the *sine qua non* in all malarious districts. Living, as I do, in a malarious district, I rarely ever give a prescription without it. I do not believe quinine destroys the miasma, whether of vegetable or animal origin, or that it neutralizes any poison in the system, but breaks the fever by its own inherent power, operating upon the very nerve centres through which the poison produces the disease, not as a supernatant, but as a shield. It is the most powerful nerve stimulant we have. Its whole force is spent upon the nerve centres, and by them its wonderful power is excited over the whole system.

In small doses, quinine is a tonic, both local and general, influencing all the organs of the body. In doses of one to two grains three times a day, the appetite and digestion improve, and there is a marked improvement in temperature and pulse.

Nerve stimulant. In doses from three to five grains three times a day, there are well defined cerebral symptoms, such as fullness, buzzing and singing in the ears, a correspondent rise in temperature and pulse, both in violence and number of beats.

A direct sedative. In doses of twenty to sixty grains, the pulse diminishes both in force and number of beats, and the temperature falls in direct ratio to the amount given, without the cerebral symptoms, when given in stimulant doses. It can be carried to prostration.

Duration of its effects is in ratio to the amount given. Thirty to forty grains will produce a sedative effect in twenty-four to forty hours. I use quinine in all malarious diseases, and rarely ever prescribe but one dose in twenty-four hours, from fifteen to forty grains. In my experience, the best time to administer quinine is between the hours of four and eight a. m., because there is generally a remission in that time.

I do not believe quinine has any curative properties in zymotic diseases. It is beneficial as a tonic.

In rheumatism, pneumonia, plurisy, and other phlegmasiæ, it renders aid by its sedative property.

I do not consider quinine an oxytocic of itself. It has no power to excite uterine contraction, but simply stimulates contraction when brought on in the regular course of nature. It imparts tone to the organ, and after labor, it promotes tonic contractions, thus lessening the liability to hemorrhage, reducing after-pains, and diminishing the lochial flow. I have been using quinine for twenty years in preventing abortion from chill and fever, in arresting hemorrhage, relieving dysmenorrhea, amenorrhea, &c.

I have met with but few idiosyncrasies in regard to quinine. In two of my patients it produces urticaria; in one it produces oppression, as if smothering; in four, the stomach revolts.

Administration. For a decided and rapid effect, largely diluted with water; to disguise taste, cold coffee or sweet milk. I always give it to children in milk. It should never be given in pills. In hemorrhagic fever, and where the stomach revolts, I use hypodermic injections. I have several times used it on infants, in form of a plaster on the spine, with good effects.

In giving you the above, I did not follow exactly the questions you propounded, but I hope you will be able to glean something that will aid you in your report.

DR. W. T. PURNELL, OF PRAIRIE BLUFF.

I will preface my answer to your circular letter of January 25th by the statement that I practice on both sides of the Alabama river, in an intonsely malarial region. Quinine is, therefore, a factor in a large majority of my prescriptions, and I find my success, as a rule, proportionate to the liberality with which I use it.

In the treatment of intermittent, remittent, and pernicious malarial fevers, I rely solely upon it, and administer it at once, without regard to the state in which I find my patient. If during pyrexia, the temperature is reduced, during apyrexia, the paroxysm is averted. During chill, I combine morphine, greatly adding to the comfort of my patient, and both the cold and hot stage are abbreviated. I do not despise or neglect other means which the condition of my patient may demand, but the quinine cures.

But it is of the use of this drug in diphtheria and as an oxytocic of which I will specially speak. I have practiced in two epidemics of diphtheria, in both of which I used it largely. In the first of these (1875 and 1876), I did not use it in nine cases, of which four died, and did use it in fifty-five cases, of which five died. I did not use it in my first cases; and since epidemics are usually more fatal in their commencement, the diminished death ratio is probably not a fair index of the efficacy of the remedy. It was evident from the first, however, that the quinine did good. The stupor and nervous prostration under its use were less profound, and their duration shortened

After the symptoms of toxæmia have passed away, I have not found it as useful as some other remedies, notably the muriate tincture of iron.

In the last epidemic (1881 and 1882), I used it in all my cases—nine in number—of which one died. Only three of these cases were of malignant type. I used it in these last cases after the method proposed by Dr. Salisbury—*i. e.*, in small and often repeated doses, placed in the mouth dry, with the object of getting its local effect. It is very doubtful whether there is any compensation in this mode of administration for the annoyance and trouble, particularly with younger children. The best results will not be obtained with less than fifteen grains daily for children from six to eight years old.

I have no experience with quinine as an abortifacient. I use it habitually with my parturient patients, but with great caution. I use it in intermittent fever threatening abortion, in small doses, with morphine. I have never had any bad result which I attribute to the respect I have shown, in my practice, to the teaching of a very large and respectable portion of the profession. I have, therefore, had no experience with it as an originator of uterine contractions; but I use it always in uterine inertia, both during and after labor, in doses of eight to twelve grains, and have found it an efficient oxytocic, bringing about invariably, so far as I remember, normal physiological contractions in from ten to thirty minutes. I give one case, the first in which I thus used it: Georgie Anne Delvach, negress, age about twenty-five years, mother of three children, had been in labor, as the midwife told me, forty-eight hours when I saw her, at four o'clock a. m., June 30th, 1880. The pains had entirely ceased about midnight, during the second stage of labor. I administered ten or fifteen grains of quinine, and in twenty minutes she had the first pain. In about one hour, the child was born, and in an hour and a half from the time I saw her, labor was completed by the expulsion of the placenta.

DR. A. J. REESE, OF MOBILE.

Your circular asking my experience of the therapeutic uses of quinine, was received in good time. But that old thief, Procrastination, has caused me to defer a reply until now.

Sulphate of quinine readily kills vegetable germs. It is the antidote to malarial diseases—intermittent, remittent, pernicious or congestive fevers, malarial dysenteries, neuralgias, &c. It is the best prophylactic; in other words, is the best preventive of a sufficiency of the poison (bacillus)? accumulating to produce an explosion. It is an anti-congestive agent of great value, as congestion of the brain, lungs, &c., or as Searcy would say, an equilibrating agent. Have never seen it produce congestion of brain as stated by some writers. It is antipyretic and allays nervous perturbation when given in efficient doses. The thermometer is a good guide for the dose; the higher the fever the larger the dose. The rapidity of absorption is a very important consideration and should never be lost sight of. Then

the mode of giving it so as to secure absorption is of primary significance. If there is doubt as to the power of the stomach to absorb, or if it should reject the medicine, give hypodermically. In giving by the mouth spirits of nitre is a good solvent. For instance, in a typical case of remittent fever, say a stout, strong man, with flushed face, conjunctivæ congested, intense headache, excruciating pains of limbs, skin dry, bowels locked up, in fact all the secretions in part arrested, great restlessness, tossing and moaning continually, &c., pulse 115 or 120, temperature 105°, 20 or 25 grains of quinine will usually produce diaphoresis and the abatement of the symptoms to my entire satisfaction. This mode of giving quinine dates back to 1850, and I have no regrets to offer. In the pernicious form of malarial, I now prefer giving my quinine hypodermically, and for reasons above indicated. As in snake bite, the greater the poison the more of the antitode should be taken and absorbed.

Is quinine an oxytocic or abortefacient? I answer, quinine has no elective or selective affinity for the uterus to produce an abortion. Have prescribed quinine freely for over thirty years in 10, 15 and 20 grain doses in malarial fevers, dysentery, neuralgia, &c., to pregnant women with the happiest effects. Have given 30 grains daily for several consecutive days, until quininism was produced. And I now say that I have never seen a case of abortion where it could be rationally attributed to the effect of quinine. On the contrary, I have seen many cases where I believed abortion would have taken place but for the judicious use of quinine. We all know that it is in some fevers for pregnant women to abort; for instance, yellow fever, scarlet fever, and small-pox. In malarial fevers this tendency is very marked, and for obvious reasons, namely: In the so-called algid stage there is internal congestion, and although the patient may be complaining of cold in consequence of the abstraction of the peripheral heat, the clinic thermometer shows an increase of internal heat of 4° to 6° of temperature. There is great nervous perturbation. There may be uterine pains in consequence (threatened abortion); after this will pass off with the paroxysm. If this patient is neglected and a recurrence of paroxysm be permitted (for want of quinine), abortion may take place whether quinine be given or not; certainly not in consequence of quinine.

DR. T. L. ROBERTSON, OF OXFORD.

I regret that my time is so limited that my answer to your request must necessarily be very imperfect, but will with pleasure very briefly append some of the facts and results of my experience in the use of one of our most valuable remedial agents, quinine. There is perhaps no diversity of opinion as to the value of quinine in the treatment of intermittent fever; the only difference to be apprehended is in the manner or time of giving it. Anterior to this it was almost the universal custom to submit the patient to a preparatory treatment before the administration of quinine, and the custom is sedulously adhered to now by some very worthy and intelligent physicians.

It was my former custom to do likewise, but a more extended observation has driven me to the conclusion, that in that course much valuable time may be and is often lost, and I formerly not only lost time in the preparation, but for want of efficient doses of quinine when the supposed preparation was complete. My former practice was to give three or four grains every two or three hours during the intermission, and often the intermission was so very short that several days would be consumed in accomplishing what one or two efficient doses would accomplish in a few hours. In recent years, regardless of preparation or fever, I give at once at least ten grains of quinine, and repeat sufficiently often to secure to the patient thirty or forty grains before the next expected paroxysm. A cathartic dose or any other remedies thought advisable may be administered at the same time without conflicting with the quinine. Remittent fever differs from intermittent only in degree, and should be dealt with in like manner, only a little more vigorously. I give quinine in full doses at once in this fever, and when I speak of full doses, I never mean less than ten grains, and if the fever is very high I give fifteen or twenty, and repeat every four or six hours until the fever is much reduced, and then continue at longer intervals, and smaller doses if desirable, and as in intermittent fever, cathartics and other remedies thought advisable can be given at the same time. I think my patients by this prompt administration of quinine are cured much earlier and more completely, less liable to relapses and other evil concomitants, than by the slower preparatory plan.

I have never treated, perhaps, more than a dozen cases of hemorrhagic malarial fever, and my cases have possibly not been of as malignant a type as occur in the more malarial sections; but be that as it may, it is produced by the same cause and amenable to the same treatment here as elsewhere. While the hæmaturia may not be directly the result of the malarial poison, it is a result or sequel to the malarial fever; therefore, in order to its earliest relief, it seems to me we ought to strike at the prime cause with the most potent remedy at our command, which is manifestly quinine, then cure the sequel if it does not cure itself, which it most usually does. Many intelligent physicians, however, with an experience that ought to give their opinions the weight of authority, object to the quinine in toto, or to a very limited extent in this complication, upon the plea that it increases the hæmaturia, and thereby damages the condition of the already over-taxed patient. Unless we admit that the advent of the hæmaturia neutralizes the malarial poison, the original cause of the fever which produced the hæmaturia, we are forced to the conclusion that the shortest route to relief is by the free use of quinine, the great malarial antidote, for we must admit that so long as the cause exists, the effect must be produced; therefore, with all the risks of increasing the hæmaturia and producing other bad consequences, I have always ventured upon the free use of quinine as the best means of curing the fever and taking care of other symptoms by the best means at my command, and my patients all recovered. The two first cases I ever saw was in consultation with a neighbor physician, only a few hours before their death; they did not get any quinine

before I saw them; it was too late when I did see them. Upon the same line of reasoning, I treat pernicious remittent and every other form of malarial fever with quinine as a base, and supplement with other remedies as may be indicated.

In the treatment of dysentery, I regard quinine a valuable auxiliary in full doses in the first stage, in so far as it relieves congestion, equalizes the circulation, and reduces fever; and in the more advanced stages, a low grade of remittent fevers often lingers which is at least modified by the moderate use of quinine. Its supporting properties are also indicated in this stage of the disease.

The neuralgias to which so many of our people are subject, especially under malarial influences, are perhaps more amenable to the influence of quinine than any other one remedy, and it has always been my chief reliance, accompanied with sufficient morphine or bromide of potash to control the immediate pain, but many cases obstinately persist under its most powerful influence, and have to be defeated by other means.

I have frequently administered quinine in what are properly denominated bilious colics, but my experience leads me to the conclusion that there are many more efficient remedies, and I therefore seldom resort to it now.

Typhoid fever, typho-malarial fever, mountain fever and continued malarial fever, all run a very similar course, and are, perhaps, identical, except as they are marked by one or another complication; I have always so regarded them. The tendency in all these forms of fever is the same, whether hybrid or genuine typhoid fever; and, hence, so far as treatment is concerned, I see no material advantage to be gained in very accurate distinctions. The long continued high temperature perhaps culminates in the greatest danger to the patient in all of these protracted forms; hence, as an antipyretic, quinine promises more in tiding over the doubtful struggle than any therapeutic agent within my knowledge. In such cases I give from ten to twenty grains, repeated sufficiently often to secure and retain a moderately low temperature. I have never had occasion to give the thirty and forty grains, and even the larger doses recommended by high authority. My results have been highly gratifying under this treatment throughout a rather protracted epidemic.

I have never recognized the fever known as gastric remittent fever of children. It is only alluded to by a few authors in the text-books. The only elaborate effort that I have noticed to establish its identity, is to be found in volume 81, page 46, of "The American Journal of the Medical Sciences," by F. Peyer Porcher, of Charleston, S. C., and if he makes out the case it has not come under my observation, hence I have no personal knowledge of its treatment.

I combatted a very malignant epidemic of diphtheria in St. Clair county, of this State, in 1871. Among the various remedies used, quinine occupied a prominent part, but my success was not such as to justify me in according any great value to any remedy. I do not regard it as possessing any specific value in this disease, but as a part of a general supporting treatment, it would seem to be important.

As is common with most physicians of my years, I have had much to do with measles, and while in its ordinary form, under favorable circumstances, it is not a very formidable disease; under other circumstances it may be quite otherwise, and baffle the best skill of the profession. In the early stage, before the eruption makes its appearance, especially if there is much fever or distress, I give ten or fifteen grains of quinine two or three times a day, which seems to reduce the fever and encourage the eruption. Continued high fever, with bronchial cough in the more advanced stage, is also benefitted by the quinine. In the congestive types, quinine is eminently useful, if not indispensable.

I have used quinine in rheumatism very freely, but my results have not been such as to induce me to rely largely on it. Other remedies equally available are much more reliable.

I attach much importance to the value of quinine in the treatment of pneumonia. I am of the opinion that many cases may be aborted by its timely use in doses of fifteen to twenty grains every few hours, and should we fail to abort the fever we reduce it much in force and effect. I continue the quinine three or four times a day, as may be required to secure a reduced temperature throughout the entire progress of the cure; and while I think its use has afforded me the best results, I am not sure that it does not increase the tendency to cardiac failure. The epidemic which prevailed here two winters ago, had a tendency to death in that way. Whether that tendency was induced wholly or in part by the quinine, or whether it was a peculiar tendency of the epidemic, I was not able to determine, as my cases all had the quinine treatment. Smaller doses are indicated in the more advanced stage or decline of the fever to promote and encourage convalescence.

I think the good effects of quinine in the treatment of bronchitis, pleurisy and kindred diseases, are quite as marked as in pneumonia, and I administer it much in the same way.

As an antipyretic perhaps no remedy has more to recommend it, and perhaps none in more universal favor than quinine; it has always proved safe, reliable, efficient and available in my hands for a number of years. It has been almost a universal custom with me, when desirable to reduce temperature from whatever cause, to administer full antipyretic doses of quinine. The auditory trouble so much complained of by many and urged as an objection to its use, has not proved a serious barrier in my experience. After the first few days my patients cease to complain of that trouble. As an antipyretic I usually prescribe from ten to twenty grains, rarely more, repeated every four, six or eight hours. I have never given the excessive doses recommended by some; I have never found it necessary.

I think children require proportionately larger doses than adults. I frequently give four and five grains doses to children not over a year old every four or six hours, until fifteen or twenty grains are taken, with apparently the best results. A case in point (which I quote from memory) occurred here more than a year ago in a very delicate child less than a year old; had high fever and spasm. I was out of town, and my friend, Dr. J. W. Peirce, saw the case at once. When I arrived half an hour later the spasm was

unabated, and so continued for another half hour. We, finally, after exhausting all other usual means, administered chloroform, which promptly reduced the spasm, and our little patient lapsed into a quiet sleep, which continued undisturbed for perhaps an hour or more. When it awoke we gave five grains of quinine and directed the same quantity every fourth hour. We alternated with two grains of chloral hydrate and four grains of potasic bromide. This attack occurred late in the afternoon. I called the next morning and learned that four doses of the quinine had been taken, and found the child in its father's arms, cheerful and clear of fever. No further treatment was ordered, and no further trouble occurred with it. I should have mentioned that, in the meantime, the bowels were moved with a dose of calomel.

I am unable to say what the true physiological action of quinine is, but its effects seem to be largely due to its operation upon and through the nervous system. Its great equalizing power over the vital forces would seem to be due to its effects upon that system.

I have never observed any serious toxic effects of quinine, unless a case of mine in which total temporary blindness occurred, could be so considered. The auditory trouble is common to all, but to a much more aggravating extent in some than others. Idiosyncrasies in some develop serious obstacles to its use, as continual nose bleeding, sick stomach, cramp, etc. A physician who moved from the Cane-brake belt to this community, told me that his little son, about ten years old, had been the subject of several attacks of hemorrhagic malarial fever; and since those attacks the use of quinine in very moderate quantities produced hæmaturia to the extent that we had to abandon its use with him. I think it wise to respect these idiosyncrasies and resort to other less efficient remedies.

I think quinine is decidedly oxytocic in ten to fifteen grain doses, and that its effects in the parturient state are further discernible, in that it relieves heart tension, relaxes the general system, and quiets nervous disturbances and fortifies against eclampsia. I do not think quinine ever induces labor. I have always administered it, when I have thought necessary, without regard to the pregnant state, so far as I have ever known, without evil results; and, formerly, I watched such cases with some anxiety, on account of the known apprehensions of others.

I think I have derived much good from the use of quinine, in fifteen to twenty grain doses in the treatment of puerperal eclampsia, after other necessary steps had been taken.

For uterine irritability during the pregnant state—such cases as seem to threaten abortion—quinine has, in my hands, been a very valuable agent, but I would not in any such case administer it without first ascertaining that there was no dilation of the os uteri, for in that event I would consider it contra-indicated; and, perhaps, carelessness in that direction has led to the prejudice to its use in the pregnant state. Two grains, night and morning, are sufficient in such cases.

I do not attach as much importance to quinine as a tonic as many others

seem to. I usually give it in connection with some of the mineral tonics and accord to it more the power of hightening the action of others than any inherent properties of its own. For such purpose I give from one to three grains three or four times a day.

It is very common with me to prescribe quinine in capsules, and I do not think it an objectionable way provided it is packed into the capsules dry, and taken into a stomach free from alcohol. It is the custom of some prescriptionists to reduce the quinine with an acid before packing in the capsules, in order to facilitate their work, and that only is the character of capsules that has found its way through the alimentary canal unaltered under my observation. I think alcohol retards the solution but seldom prevents it. I usually administer quinine to children in an aromatic elixir, very often in coffee or water. I have never used it hypodermically or by inunction; have frequently used it by enema with very satisfactory results.

DR. JAMES P. ROREX, OF SCOTTSBORO.

My habit is to give quinine to all of my patients immediately upon recognizing the trouble as any of the various forms of malarial fever, in doses varying from 20 to 30 grains if an adult, and smaller in proportion to age. I generally repeat as often as is necessary to keep my patient under its influence, which I find is about every eight hours, rarely giving any other remedy unless some complication exists.

I often find marked benefit from the use of quinine in dysentery, neuralgia and bilious colic, but give it then in somewhat moderate doses, say from six to fifteen grains every twelve hours.

I do not believe we will have continued malarial fever when we treat it properly, and I mean by this, when we give quinine in sufficiently large doses to neutralize the poison upon which the disease depends. Have never seen any continued malarial fever except cases which had been treated with cathartics and other remedies with the quinine left off or given in doses so small that they were useless.

I treated six cases of typhoid fever in Scottsboro in the late fall and winter of 1880. I used quinine in two of the cases in antipyretic doses, fifteen to twenty-three grains, and I believe they grew worse each dose I gave them, and to my regret they both died, while the four that I never gave quinine to recovered. Can't say how much the quinine contributed to their death, if at all. There was very little difference in the cases. All were in town, and we never have malarial fever in Scottsboro unless contracted elsewhere.

I have never derived any benefit from the use of quinine in any size dose in any of the diseases you class as zymotic diseases. I always use quinine in acute rheumatism with marked benefit; less often in pneumonia, bronchitis and pleurisy, unless the patient has had malarial fever during the fall preceding the attack, which is often the case.

I never hesitate to administer quinine because my patient is pregnant,

and have never had cause to regret it, believing there was much more danger in the paroxyms of fever than there was in giving quinine.

I believe there is very little tonic effects derived from the administration of quinine in any size doses, if any at all; therefore, never use it for its tonic effects. I have never yet met with a person who could not take quinine. but many who said they were idiosyncrasies to it. They always bore it well when they did not know they were taking it.

I believe quinine is abused when given in less than ten grains at a dose in malarial fever to an adult, or more than forty grains at a dose, unless extreme circumstances govern the case.

I have indicated the intervals and doses. The methods are various. I give it by inunction, deglutition, and by hypodermic injection, also by the bowel or anus, but prefer it given by deglutition and in solution.

DR. S. L. ROUNDTREE, OF HARTSELL.

I received your circular asking my experience in "the therapeutic uses of quinine in Alabama."

1st. In malarial fevers of an intermittent character, it has proved to be an antiperiodic in large doses.

2d. In periodical neuralgias it relieves pain.

3d. In typho-malarial fevers (so called) I find it is not admissible in any stage of the fever. It increases the nervous excitement, causes delirium and restlessness of the patient.

4th. I have very limited experience with quinine in zymotic diseases.

5th. Quinine in periodical croup has a salutary effect. It also has the same effect in pneumonia of the second stage.

6th. I have never found quinine in any stage of pregnancy to have an oxytocic effect.

DR. R. V. SALMON, OF DADEVILLE.

I have used quinine in malarial fevers in from five to fifteen grains with good success; have obtained better results from larger doses in dysentery and neuralgia; and have found some benefit from it in bilious colic. I have never used it in typhoid fever, except in small doses during convalescence. We have very little typhoid fever in this section. I have seen only a few cases of hemorrhagic malarial fever. In these, small doses seemed to do best. In the remittent fever of children I use it with good results. In rheumatism it seems to be of advantage in some cases; and entirely unavailing in others. I have used it in large doses in pneumonia and with good results; also, with good results in bronchitis. It has succeeded only tolerably well in pleurisy. I use it frequently in small doses as a tonic.

Idiosyncrasies—In a few persons to whom I have given it it always produces a rose rash; in others, even in small doses, it causes intense nausea.

DR. C. P. SANDERS, OF PLEASANT RIDGE.

(1) Quinine I regard an agent of great importance in all malarious fevers. It may be of questionable utility in those of the hemorrhagic type, but even in these is a valuable adjuvant in the general treatment.

(2) I regard it of questionable importance in the treatment of dysenteries and bilious colic, but a potent agent in neuralgia.

(3) I appreciate its importance in the early stages of the types of fever mentioned in this interrogatory, (typhoid, typho-malarial, gastric, remittent, etc.) except the gastro remittent, in which its use by inunction may be beneficial.

(4) In the class of cases mentioned in this interrogatory (zymotic diseases), I regard it one of our most reliable therapeutic agents.

(5) In the forming stages of the diseases mentioned in this interrogatory, (rheumatism, pneumonia, and the phlegmasiæ), I appreciate its great importance, and when administered in decided doses it frequently aborts them, or modifies their intensity.

(6) Its antipyretic effect, I think, unquestionable; and its toxicological effect exceptionable in reasonable doses. As an oxytocic I think it entitled to no consideration in ordinary doses. As a tonic and restorative we recognize its great value. Idiosyncrasies, contra-indicating its administration, are exceptionable. In a small percentage of cases it produces a rash which generally subsides without any unpleasant results.

(7) In regard to doses and intervals of administration, I am usually guided by the character of individual cases, and the dose may vary from two to twenty-five grains at intervals of two to four or six hours.

(8) The class of cases in which its effects are more fully manifested, are those of the destructive intermittent type. As a prophylactic in all malarious localities, I think its efficiency unquestionable. Its importance as a therapeutic agent in our latitude admits of no question, and I regard it a remedy applicable in a large percentage of cases in all localities. When administered night and morning in ordinary doses—say from three to five grains, in advance of our fever season, and continued with some degree of regularity, we generally observe a very decided immunity from all malarious diseases. Its efficiency as a prophylactic may be ascribed to its admitted tendency to maintain the harmony and integrity of the nervous system.

DR. E. H. SHOLL, OF BIRMINGHAM.

In an active practice covering within a few weeks of 27 years in Sumter and Greene counties, and for more than 25 in the former, save three years of my life, entirely in malarial neighborhoods, the use of quinine or cinchonidia, or cinchonia, or chinoidine, has of course been very large in the several forms of malarial fever. Of course I regard the use of quinine, indicating any or all of the above, as absolutely indispensable in the treatment of any of the forms of malarial fever. There is no special peculiarity

in its use with me. I use it at once whenever and wherever I strike a fever of this kind as unsparingly as may be needed to accomplish the effect desired—in all ages, colors, and conditions—never trusting the simplest form of malarial fever without its abundant use, and the results have been happy. Mercurials and opiates always accompany it in acute cases, in such quantities as frequently, and for such length of time as may be indicated.

With the exception of occasional cases evidently requiring it, I do not use it in dysentery. In neuralgias in the fall and early winter it is clearly indicated, and used by me with such other remedies as may seem judicious. I do not find it adequate to the relief of neuralgia as we have it, without the aid of other treatment. In bilious or other colics where it is clearly paroxysmal, quinine is used.

My experience with it in continued fevers has led me almost entirely to abandon its use in this class of disease.

I use it freely in septicæmia; sometimes in diphtheria if it prevails in the late fall; always in measles, and tentatively in scarlet fever.

In pneumonia in the negro I sometimes use it freely, rarely in the white, its use here being limited ordinarily to a positively marked malarial complication, which cannot be mistaken or pushed as is sometimes absolutely demanded for its antipyretic effect. This antipyretic effect, in whatever disease judiciously indicated, is commonly brought about by one decided dose between 2 and 6 a. m., or at most by two in the twenty-four hours. I have some patients who cannot take quinine without a severe attack of urticaria, and one who cannot take it unless guarded by an opiate, without producing violently painful cramping of the stomach.

In all malarial cachexias it is clearly indicated as a tonic and restorative. More commonly its use here should be in combination with iron, arsenic and nux vomica. The limit of dose in twenty-four hours in all ordinary cases is twenty-five grains, preferably used for its continuously desired effect in all acute cases, at the exact interval of three hours day and night. This time between doses, experience has proven to be all that can be desired. It is administered to an adult either in capsule, tissue paper or solution, as preferred; very rarely in pill form in acute cases; by the bowel with a drop and a half each of elixir vitriol and water to each grain, and is given in three times the dose by the mouth. Hypodermically, I use it in the severer forms of fever; ordinarily at this day in the form of Kumpe's solution, and particularly this way with children in the convulsions of high temperature from malarial fever, and in the cases of cholera infantum, which may at one season of the year be regarded almost as another form of congestive malarial fever.

In the Medical and Surgical Reporter of Philadelphia of August 23, 1879, may be found a brief article by me on "Malarial Fever."

In same journal of November 19, 1858, a brief article, "Two anomalous cases of Chills and Fever and one of Rheumatism."

In same journal of October 24, 1868, an article on "Hæmaturic or Yellow Remittent."

Same journal of August 12, 1882, "Cinchonidia as an Antipyretic."

DR. JAMES W. STEWART, OF FLORENCE.

During my long residence in malarious regions in South Carolina, Mississippi and Alabama, where I have resided and practiced physic for about fifty years, I met with fevers peculiar to malarial origin every season.

In this form of fever I long ago come to the conclusion that there is no reliable substitute as an antiperiodic for quinine sulphate. When the system has been prepared for its use by such colagogues as will excite the hepatic secretions, I have seldom failed to speedily arrest the attack. I usually give it in combination with other medicine to meet such indications as may exist.

In dysenteries, neuralgias and bilious colics, I invariably use it.

In continued fevers I have not found it to do so well, and do not generally use it.

In the zymotic diseases I have not used it.

In pneumonia, bronchitis, rheumatism, and the phlegmasiæ if complicated in the malaria, it does well.

I esteem it as a valuable antipyretic. I have never witnessed any poisonous effects from its use. In excessive doses it might produce such depression of the nervous system as to arrest the heart's action and produce death. As an oxytocic, I have never seen it do harm. Idiosyncrasies rarely exist, and can only be known from experience.

DR. W. C. STEWART, OF OLD TOWN.

I have used quinine with very great satisfaction in the treatment of malarial fevers. I find no other medicine to compare to it.

In dysentery and neuralgia quinine is most efficacious.

In typho-malarial fever I use quinine only as an antiperodic, giving every 6th or 7th day.

In gastric remittent fever, when administered by the mouth, the effect of quinine has been very satisfactory.

In septicæmia, diphtheria and cerebro-spinal fever, I am much pleased with quinine.

I always use and depend largely on quinine in treating pneumonia and rheumatism. As to the toxicological effects of quinine, it is much less poisonous than the ordinary brandy and whisky which we use. Quinine is a very fine oxytocic, tonic and restorative.

Dose—One to thirty grains the extremes in my own experience. I have taken fifteen grains in three doses every hour; fifteen grains in one dose, and once when I weighed two hundred and twenty pounds, being then very fat, I took thirty grains suspended in water. I suffered more inconvenience in the first mode of exhibition. My own case I consider strikingly illustrative, as I never use arterial or nervous stimulents or sedatives. The largest dose I ever gave a child was five grains in solution to a little girl two years old, just two hours before a chill was expected. I watched her pulse,

respiration and eyes closely. She was no more disturbed than if she had taken sixty drops of good brandy.

I would respectfully call your attention to the use of quinine in the successful treatment of pseudo-membranous croup, alternated with iodide of potassium. I have never seen nor heard of any remedy to equal the effect of the two.

Dr. Ames, Montgomery, Alabama, on use of quinine in pulmonic diseases. New Orleans Medical and Surgical Journal, 1847.

Dr. Bolling, Montgomery, Alabama, on effects (that seem almost antidotal) of quinine. Bolling on inflammatory affections of malarial districts.

Dr. R. F. Michel, Montgomery, Alabama, on hemorrhagic malarial fever. New Orleans Journal of Medicine, 1869.

DR. JOB THIGPEN, OF GREENVILLE.

Quinine, in my opinion, is the remedy *par excellence* in intermittent fever. So universally is it used, that I am seldom called to a case of simple intermittent fever. Nearly everybody knows that quinine is the remedy for chills, and buy it and give it themselves, and never send for a physician for simple intermittent fever.

In remittent fever, I usually prescribe fifteen to thirty grains of quinine, to be divided in three doses; the first to be given as early as 4 o'clock a. m., and repeated at intervals of two hours. When the remission is very short, I sometimes prescribe fifteen grains, to be given at 2 o'clock a. m., and give no more that day, unless the temperature falls below 103½ degrees. In case it does not, I repeat it the next morning. I do not wait to prepare the system, but use quinine in the morning, between midnight and 10 o'clock a. m. I do not give quinine when the fever is rising, but have no hesitancy in giving it when the fever is decreasing. If the temperature reaches 104 to 105 degrees at its highest, as soon as it recedes to 103½, I often give ten grains of quinine, with the best effect. The system once brought under its influence, is kept so until the fever disappears. I never wait for a remission, but direct a dose of quinine at 4 o'clock a. m., fever or no fever. Usually, three to five days is ample time to break up a case of remittent fever.

In the treatment of hemorrhagic malarial fever, I use quinine between midnight and 4 o'clock a. m., one dose of ten to fifteen grains. If the stomach will tolerate it, I repeat it at intervals of three to four hours. I have thought that it increased the nausea in some cases, but I have never known a single dose of fifteen grains, given at 2 o'clock a. m., do harm, but have often seen the happiest effect from its use. I have used it by enema in those cases, as well as hypodermically and endermically. I have seen excellent results from the latter method, particularly in children with irritable stomachs.

In pernicious fever, I use quinine first, quinine last, quinine all the time. If the patient can swallow, I give him twenty to thirty grains of quinine at once; if not, I give it *per rectum* in large doses, and keep him under its in-

fluence at least three days. In 1858, I was called to see a negro man who could not swallow. I gave him about one drachm of quinine in whisky *per rectum*. After an hour or two, he was able to swallow, and I gave him quinine *per orem*, and instructed his owner to continue to use it in such doses as I gave until my return. On account of high water, I did not return until the second day, when I found that he had taken nearly an ounce of quinine in forty-eight hours, was clear of fever and rational, and was soon well again. Very many cases of this terrible fever have I seen recover under the use of quinine, as if by magic.

In the treatment of dysentery, quinine is one of our most important remedies; for with it we can usually control the fever, the doing of which is more than half the battle. I use it in this disease about as I do in remittent fever, and in many cases the bowel trouble ceases at once, with very little other medicine. Quinine will cure more cases of neuralgia than any other known medicine. It is sometimes necessary to use it in large doses, as in intermittent and remittent fevers. In other cases, combined with arsenic, iron and strychnia, in small doses, and continued for several days, it will often relieve the most painful neuralgia. (The above combination is the best I have ever used for chronic chills, if chills ever become chronic.)

I have often used quinine in colic of a periodic nature, with good effect, anticipating its recurrence as in chill and fever. In some cases of continued fevers, I have used it with marked benefit, and in others it seemed perfectly futile. In some cases, it seems to exercise some influence over the fever, and produce a calmative effect; in other cases, nervous restlessness seems to be increased. In the so-called typho-malarial fever, it is certainly of prime importance, and although you can not break up the fever, you can lessen its violence, and I have no doubt shorten its duration. I always use it, in these fevers, in large doses for the first few days, and smaller ones after the first week, using it principally in the forenoon.

In gastric remittent fever of children, quinine is indispensable. Without it, many will die that may be saved by its judicious use. If the stomach will not tolerate it, I give it *per rectum*, hypodermically or endermically. Quinine is useful in measles and scarlet fever, by controlling the malarial influence which is often present, and causing the eruption to make its appearance on the skin.

Quinine is one of our most valuable remedies in diphtheria and croup. If I am consulted about a child having had a croupal cough the previous night, I invariably prescribe quinine in the same way that I do when I expect a chill, and in nine cases out of ten with the same effect.

I would be at a loss in the treatment of erysipelas without quinine, believing it to be one of our best remedies.

Rheumatism is often cut short by the use of it, particularly that form known as acute articular rheumatism. I have often relieved patients of this disease as quickly as of remittent fever.

I never treat a case of pneumonia without it. I usually give fifteen to thirty grains between four o'clock and 8 o'clock a. m. I believe many cases of pneumonia could be cured with quinine alone, although I never risk it.

I use it in the same way in bronchitis, pleurisy, and catarrhal fever, and would be at a loss without it. I seldom treat a case of any disease that I do not use more or less quinine some time in the course of treatment.

Before performing an operation of any importance, I usually give ten grains of quinine. The shock is borne much better than without it. A woman will bear the shock caused from labor better if ten grains of quinine are given during the labor.

I have no confidence in quinine as an oxytocic. Sometimes, in the treatment of pregnant females, we use quinine, and abortion takes place; but if it is not used in the severe forms of malaria, the woman is sure to abort, and probably die. I, therefore, take the position that it is our very best preventive. I have never seen any toxicological effects from quinine that were not recovered from. I have seen a few individuals delirious and sleepless under its influence, which all passed off when its use was suspended. I have sometimes seen urticaria produced by it. I twice treated a young lady for remittent fever that quinine seemed poisonous to. On my first visit, I was told that she was passing bloody urine, and that she had taken several doses of quinine, but that it had no control over the fever. I suspected it of being adulterated, and gave her some that I knew to be good. It had no influence over the fever, but the hæmaturia was increased. I attempted to use it several times, with the same result. In a subsequent attack, the same result was produced; I gave arsenic, and she recovered.

DR. F. TIPTON, OF SELMA.

Question 1st. The writer's experience extends over fifteen years city and country practice in very malarial districts.

Intermittent fever. When time does not press, he follows the time-honored habit; when urgent, he gives twenty-five grains of quinine and one-fourth grain of morphia three hours before the expected paroxysm. This is put in pills in combination with two grains of capsicum. He uses the hypodermic method in all cases which present formidable symptoms. The solution used is as follows: Acid tartaric, fifteen grains; quinine, thirty grains; aqua (boiled), three drachms. Inject one drachm at once, and repeat p. r. n.

Whilst this often produces soreness, it rarely produces abscess. The writer used this solution as an antipyretic for three weeks, almost nightly, in a case of typhoid fever, without producing abscess, with a marked diminution in the temperature and amelioration of all symptoms, in a few hours after each insertion. If its use was omitted for longer than forty-eight hours, the temperature would run up, delirium set in, and atoxic symptoms crop out. In some cases, rectal administration answers well, where the patient objects to its hypodermic use. I always give a preliminary hypodermic of morphine, when the patient can bear it. In very nervous subjects, this is also advisable before using the hypodermic method of giving the quinine. The writer combines quinine with aromatics, when

giving it by the mouth. They stimulate the mucous membrane, and hasten absorption.

His plan of treating remittent fever is substantially as follows: If necessary, a mercurial cathartic is given at once (calomel, ten grains; extract of colocynth comp. five grains). At twelve o'clock that night twenty-five grains of quinine, one-sixth grain of morphine, and two grains of capsicum are given at one dose. At six next morning, unless the patient be unduly quinineized, ten grains more are given, and five grains more at ten o'clock. If this fail, thirty grains may be given at twelve o'clock the next night, and the other doses the same. If this fail, then quinine is only used as an antipyretic to control excess of heat, say over 102½ degrees. The drug is given in pill form, freshly made. When the stomach rejects these, it is administered by the methods above stated.

In the hemorrhagic forms of malarial poisoning the best plan is to determine the character of the disease, whether intermittent, remittent or continuous. In the first two give the drug hypodermically; do not risk the stomach or rectum. Anticipate the paroxysm with the drug in fifteen grain doses under the skin, four hours before the expected paroxysm. The patient may take besides, during the interval, several doses by the stomach, but I never feel safe until he gets fifteen grains under the skin several hours before the hour of chill. This is for the intermittent and remittent forms. In the continuous forms I have never seen any good from quinine until the secretions were established, and a remittent type established by purges, sweating in blankets, etc., (except as an antipyretic).

Question No. 2. Dysenteries, neuralgias and bilious colics—I have found quinine useful in all these conditions, and my favorite plan is to give it in massive doses with opiates (twenty to thirty grains of quinine; one-quarter to one-half grain morphia). Quinine is good in all febrile conditions when given in these doses.

Question 3. In the continued fevers quinine is always tried by the writer in large doses in combination with opiates, which renders it more efficient as an abortive in all these fevers—afterwards as an antipyretic in combination with tepid sponges, the wet sheet, etc. There is no question of its utility as an antipyretic in some of these cases. My experience, hospital and private, has been unusually large for my term of practice, and I speak knowingly. I invariably try the drug in large doses in all cases and note the result—if favorable, continue, if not, discontinue. This is the only standard, individual testing, and all should be given the benefit of a trial. The heat kills in these fevers, and in some cases quinine is as certain a heat checker as opium is a pain killer, and every patient ought to be given an opportunity to test its antipyretic virtues. Keep down the temperature and you won't have any heart failure, hemorrhage, etc. If it fails after a fair trial I quit it and use digitalis, twenty to thirty drops of the tincture every two hours, and the wet sheet.

Question 4. In the zymotic diseases I use it only as an antipyretic, and am chary of its use in meningetis.

Question 5. In the phlegmasiæs I always use quinine as an antipyretic

whenever the temperature exceeds one hundred and twelve and one-half in everything save cerebral inflammations, etc. In pneumonia and all acute visceral inflammations antipyretic doses of quinine will do more good than anything we can use, in the early stages. Combine it with morphine or opium and it will modify any visceral inflammations, except those of the brain and its addenda.

Question 6. I am a strong advocate of quinine as an antipyretic; always give it a trial at all ages and in all conditions, weak heart, strong heart, everything; and if I have ever hurt a patient with it I can not recall it; always combine with opium and pepper when I can; if not, give it alone and hypodermically if necessary. Give it three or four hours before the highest rise of temperature; if twenty-five grains don't check it, I give fifty; if this fail I give digitalis, twenty to thirty drops, and use the wet sheet.

Among the toxic effects, I have seen it precipitate delirium tremens in alcoholi pneumonia, when given in antipyretic doses and in divided doses; have seen it produce spectral illusions (retinal), tremors, dilated pupil, and semi-shock in idiosyncrasies and in badly judged administrations. I have never seen any bad results save in idiosyncrasies, when judiciously administered; have seen urticaria, coryza, mild bronchitis, purging, etc., follow its use in some cases. These are always idiosyncrasies, and are quite rare out of hospital life. In one patient thirty grains of quinine were given night and morning, for five days, with good effect; patient had pneumonia, with high pulse rate and temperature 104 to 106 degrees. Writer was a clinical assistant in an eye and ear hospital for a long period and never saw a case which could be clearly traced to quinine as a cause of ocular or aural disease. Have had one or two cases of aural catarrh, in typhoid fever where quinine had been used in large doses, but the question is open as to "*post hoc* or *propter hoc*," this being one of the symptoms in some cases in the natural history of typhoid fever.

If stimulants be given in all cases, when the heart is weak, before the administration of the sedative dose, there is nothing to fear but that *bete noir* idiosyncrasy in my experience.

I have no experience with quinine as an oxytocic. Have seen cases in which quinine caused hemorrhage from the unimpregnated uterus between periods of menstruation, but never saw an abortion, or premature labor, from its use. I never refrain from its use in pregnancy, and have used it repeatedly. I regard it the best of all tonics; have been told often by patients that they could feel its stimulating effect almost as clearly as alcohol or coffee.

The most remarkable idiosyncrasy that I have ever met is in the case of a gentleman of this section, in whom the smallest doses produce spectral illusions, monkeys, snakes, etc.; in fact, symptoms of delirium tremens, without the delusion—his mind remains perfectly clear. I attribute it to some irregularity in the innervation or circulation in the retina and optic nerve.

DR. J. S. WEATHERLY, OF MONTGOMERY.

I have not been able to find my paper on the Ecbolic Effects of Quinine. I think it was published by Gaillard in 1874 or '75. That paper was founded on actual experience. Several cases were reported in which large doses of quinine were given to pregnant women without any injurious effect. I took the position that all fevers have a tendency to produce miscarriage, and that in malarial fevers the only way to prevent this is to get the patient under the influence of quinine. My convictions are very strong on this subject.

As a general rule I do not think that quinine is a good remedy in hemorrhagic malarial fever.

DR. R. D. WEBB, OF LIVINGSTON.

In response to your circular letter on the "therapeutic uses of quinine in Alabama," I can, for the want of time, give only brief replies:

1. Uses of quinine in malarial fevers, &c. In all forms of malarial fevers intermittent, remittent, hemorrhagic, and pernicious, quinine has been the sheet anchor of my treatment, and after an experience of thirty years I have found no substitute for it. I have used for these diseases, arsenic, zinc, iodine, salicine, cinchonidia, the carbonates, and hyposulphites, but with none of them have I been sufficiently satisfied, to discard in their favor, quinine, even in the milder forms of malarial fevers. I regard it as the only safe and reliable remedy in the more severe and pernicious forms, including under the term pernicious the hemorrhagic malarial variety.

In the hemorrhagic variety I have used it freely with satisfactory success, and though there are those who doubt its utility in this variety, after a large experience I must say, with emphasis, that I would not be willing to undertake the treatment of a case of this kind without the use of quinine.

I am satisfied I have seen it increase temporarily the hæmaturia, and in a few cases, where given to prevent a recurrence of an attack at the second or third hebdomadal period, I have seen a free hæmaturia induced by it, unaccompanied by any febrile action; yet, notwithstanding this, I have not hesitated to give it freely without bad results in such cases. The temporary increase of hæmaturia is more than overbalanced by the direct effect in preventing a return of the next expected paroxysm, and thus removing the condition of the system upon which the hemorrhage depends.—See Trans. Ala. Asso. 1876, pp. 260 and 261. In many instances, I have no doubt, failure is the result of a too timid use of the quinine, or the condition of the stomach by which absorbtion of the remedy is prevented, and thus its constitutional effect not obtained.

We should satisfy ourselves that the patient is under its influence at the time of the expected return of the paroxysm, and if there is danger that it is not retained, or absorbed, use it by the hypodermic method.

But I would not be understood as advocating the use of what may be termed overwhelming doses. I have rarely given per orum over forty

grains during the twelve hours preceding the time of paroxysm, or fifteen to twenty grains hypodermically. But to show that even in much larger quantities it is not dangerous, I would refer to a case cited in my Report on the Diseases of Sumter County (Trans. Ala. S. Asso. 1873, p. 96), in which a boy of fifteen years got in twelve hours, through the anxiety of his parents, one hundred and twenty grains, and the second morning after was at the breakfast table. The only alteration in the treatment pointed out in my essay on this subject, which I would make, is to use atropia and morphine with the quinine.

2. The use of quinine in other malarial maladies, such as dysentery, neuralgias, bilious colic, &c. I have used it freely and habitually in all of these, with the most satisfactory results. In the treatment of dysentery, especially in the fall of the year, I have found it indispensable. In neuralgias I find a more decided and prolonged use of it necessary than in the malarial fevers. If by bilious colic is meant that variety of severe pain in the region of the liver, which often accompanies a malarial remittent fever, I have found no remedy equal to it; but those colicky pains dependent upon irritation or inflammation of the biliary duct, or irritation of the duodenum near the entrance of the duct, I have found but little influenced by it.

3. In the typhoid fevers (Enteric of Wood) of this section, I have used quinine moderately in the first week of the attack to counteract any malarial influences that may be lurking in the system. I have not often used it in typhoid fever for its antipyretic effect, fearing the shock or depression to the nervous system, which these large doses produce.

In the typho-malarial, and continued malarial fevers (which I use as synonymous terms), I have used it more freely; and I have reason to believe that by its persistent and free use in these quasi-continued forms of malarial fever, I have often arrested them at the end of the first or second hebdomadal period, whereas, without it, the cases would have assumed a more typhoid condition, and continued into the third or fourth week, if the patient should survive this long. I do not believe it will arrest a typhoid fever, but in these quasi-continued malarial fevers, I have often seen the best results from its decided use in the first week of the attack.

4. In pneumonia, bronchitis and pleurisy I have used it freely in the first stages of the disease, with good results. In these cases I have usually combined it with opium or Dover's powder, and have reason to believe that I have seen many cases shortened, or almost strangulated by its free use in the beginning of an attack.

5. Its antipyretic property. Long before the term "antipyretic" was brought into use in connection with quinine, I had been in the habit of using quinine as a sedative in malarial fevers, and especially in those cases complicated by inflammatory action of the brain, lungs or bowels. In this connection I would refer to an article on "Quinine, a Stimulant and Sedative," read by me before the St. Louis Medical Society and published in the St. Louis Medical and Surgical Journal, 1851, p. 502. In this article I argued that quinine in full, decided doses, acted as a sedative (antipyretic), reducing the frequency and force of the pulse, and also reducing the tem-

perature of the surface, thereby exerting a beneficial influence over the inflammatory complications of malarial fevers. The doses used for this purpose were from ten to thirty grains, given without regard to the stage of the fever. I have not had reason to change my views since that time, but upon the contrary, an experience of over a quarter of a century in a malarious district has confirmed this view of the action of quinine, and I do not hesitate to use it in fevers with these inflammatory complications for its antipyretic effect; and I think I may add, with good results. I have not, however, been so well pleased with its antipyretic effect in typhoid fever. In decided doses it will most certainly reduce the temperature, and for the time the febrile action; but in these cases it has to be kept up so long and given to such an extent, that I have feared the nervous excitability and reaction which follow. Hence, while recognizing its antipyretic effects upon the system, I have preferred in these cases to confine its use to the first week of the attack, thereby eliminating any malarial element that may be acting with the typhoid poison, and relying upon sponging the surface with cold water to reduce the temperature.

Its toxocological effects I have not seen to the extent represented by Drs. Baldwin and Sims. As is known it very generally produces temporary deafness. I have seen a few cases in which I thought a permanent impairment of the hearing could be reasonably attributed to the use of quinine. I have seen two cases (both children) in which it produced very decided, but temporary blindness. The vision in neither of these was injured beyond this temporary effect. I have on several occasions suspended the remedy in children from a great degree of nervousness and wakefulness which seemed due to it, but this was a transient effect, in no case resulting in serious trouble. I have also seen quite a number of cases in which urticaria or erythema followed its administration, which disappeared with the usual physiological effects of the remedy. But altogether its toxocological effects have been with me nearly nil.

I have never had any reason to regard it as an oxytocic, but upon the other hand, I have often seen cases in which I thought an opposite effect was produced. I do not hesitate to use it in any stage of pregnancy, when it seems to be indicated as a remedy for any of the diseases for which it is generally used.

Under the head of curious idiosyncrasies I may rank one or two in which it invariably acted as a cathartic; one in which it was decidedly emetic, the stomach invariably rejecting it in every form and dose, even when given under disguise, and without the knowledge of the patient.

My method of administration is usually by capsule, in three portions, commencing six hours before expected paroxysm and giving one every two hours; nor have I met with the difficulty often complained of, of a want of solution and absorbtion by the stomach, except in a single case. With fresh capsules I meet no trouble from this source; and the method is so much more grateful to patients that I do not feel disposed to abandon it. I prefer this divided dose to the larger single dose, where we are not seeking to obtain

the direct antipyretic effect of the remedy. Of course where this is our object we give it in more decided doses, at longer intervals. Its hypodermic use I resort to when deemed necessary, after a carefully prepared and well filtered solution, and in this way have generally avoided those unpleasant local effects which sometimes attend this method. I also frequently, in children, use it by inunction. But I prefer other methods, as it is difficult or impossible to determine how much you give by this method.

DR. JOHN M. WHITE, OF PLEASANT RIDGE.

I have used sul. quinia successfully in several cases of congestion of brain, caused from malarial fever. First case, a boy about eight years old taken with chill or chilliness, subsequent fever; fever growing higher produced coma or unconsciousness. Head hot, pupils contracted, surface of skin cold, pulse rapid and weak. Diagnosis from above symptoms: Congestion of brain, caused from malarial fever. Patient remained in this fearful condition some time. Treatment: First gave enema and evacuated the bowels; 2d, gave sul. quinia per rectum in thirty grain doses three times per day. Relied on quinia as the sheet anchor. Applied cold water to the head; soon as the quinia brought consciousness gave him calomel and brom. potassa. Owing to the hot head, veratrum seemed indicated, but the rapid, weak pulse contra-indicated it. Opium and sedatives, save brom. potassa, are fatal in this disease, opium increasing the congestion of the brain.

DR. GEORGE WHITFIELD, OF OLD SPRING HILL.

In reply to your circular about therapeutic uses of quinine, would respectfully submit, as follows:

1. It is the only reliable and satisfactory remedy in this class of fevers. I have experimented faithfully with most of the so-called substitutes, which have not proved satisfactory.

2. In this class have found it very valuable, assisted by anodynes.

3. In this class have not found its effects well marked, but consider it a valuable remedy as a tonic and supporter. Large doses have not cut short the disease in my practice.

4. Have used it in none of this class, except diphtheria, septicæmia, and cerebro-spinal fever; think it a valuable tonic in the two former—in the latter, useless.

5. A valuable adjuvant in all these, especially in pneumonia in combination with opiates and sudorifics, but has not in my hands cut short the disease in any of these complaints.

6. As an antipyretic in malarial, or more properly speaking, paludal fevers, invaluable; toxicological effects never seen; never gave it in larger doses than thirty-six grains in twenty-four hours; never thought it necessary to give more; indeed, have heeded Dr. W. O. Baldwin's "warning" of

twenty-five or thirty years ago. As an oxytocic, consider it inert; have administered it many hundred times to pregnant women in every variety of circumstances and conditions; have never seen it cause uterine contractions; am confident that it has been accused of doing what "chill poison" did. As a tonic and restorative, superior to all others. No idiosyncrasies remembered, but have found a few persons who were fond of the taste of it—one a small child; have never thought it necessary to administer it in enormous doses; indeed, have been conservative always in the use of it.

DR. J. H. WILLOUGHBY, OF ARKADELPHIA.

1. I use larger doses of quinine in intermittent fever than in any other malarial disease.
2. I use it in small doses in dysenteries and neuralgia.
3. I use a few very large doses in typho-malarial (so called) fever, and very small doses in typhoid fever.
4. I use small doses in zymotic diseases.
5. I use it in pneumonia, bronchitis, and pleurisy.
6. I use it in brandy as a tonic. One old lady that I attended for several years was obliged to have morphine mixed with every dose; alone it acted as a cathartic. In all fevers I at first give from one to seven pills (one every hour), containing two grains calomel, one-quarter grain quinine, and one-eighth grain pulverized ipecac. In simple intermittent either three, four or five grain doses before the chill, or one thirty to sixty grain dose with one-quarter grain morphine in with the fever on, and after tonic doses. Some years since Mr. S. sent in haste for me; he had been chilling every other day about a week, and had taken some purgative pills, and was now speechless, with a very high fever; in fact his friends said it was useless to give medicine. I immediately gave sixty grains quinine, one-quarter grain morphine, and put a large blister all over his bowels, and in an hour he was asleep and sweating freely. He got well. I was passing Mr. P.'s, and was called in. They said he had a chill two days before, and a fever ever since. I gave him eighty grains quinine and one-quarter grain morphine mixed. In an hour I passed back, fever gone; got well on tonic treatment.

In typhoid fever I make up thirty or forty doses, each containing about one-half grain quinine, one-half grain flour of sulphur and one-eighth grain pulverized gum myrrh, to be given every three hours for two or three days, then four hours, five, six, etc. This course, with opium to control, and brandy to stimulate at the proper time, has never failed me in a single case. When ergot and all else fails in cases of parturition, forty to sixty grains of quinine, with one-eighth or one-quarter grain of morphia, will do the work, and never fail.

ANALYSIS OF TESTIMONY.

1. *The uses of Quinine in Malarial Fevers—intermittent, remittent, hemorrhagic, pernicious, etc.*

In regard to the therapeutic value of quinine in the more common forms of malarial fevers—that is to say, in intermittents and remittents—there is no diversity of opinion amongst my correspondents, all of them regarding it as very nearly antidotal or specific.

There is some diversity, however, in regard to the methods of administration. In intermittents of whatever type, the common practice is to wait for the subsidence of the febrile stage, and to give the quinine during the intermission; but this rule, which I myself believe to be a wise one, is not always observed. The quantity of quinine considered necessary varies considerably, in accordance with the views of different practitioners under the same circumstances, and of the same practitioners under different circumstances. The extremes may be placed at about fifteen grains as the minimum, and about sixty grains as the maximum; but in the large majority of cases and with a large majority of practitioners the quantity preferred ranges from twenty to thirty grains during a single paroxysmal period, whether longer or shorter.

In regard to the number of doses and the length of intervals between the doses, the differences are considerable. Some practitioners prefer to give small doses frequently repeated, and so regulated as to time that the last dose shall be taken only a short time before the expected advent of the chill. Others prefer to give larger doses and to anticipate the coming of the chill by intervals of several hours, and so begin the quinine soon after the decline of the fever, and in a smaller number of larger doses. For example: In quotidians they would give twenty grains at bedtime, and ten or twenty grains more next morning; in tertians or

quartans they would give ten to fifteen grains night and morning during the apyrexia in the interval between the past and the expected paroxysms. Others still would prefer to give the whole amount of quinine at one dose during the defervescence—that is to say, during the sweating stage. This last method is one that I am myself very partial to. When given in this way the medicine is promptly absorbed, and seems to reinforce the natural powers of the organism in their effort to throw off the invading malady. There need be no fear that the influence of the quinine will wear out before the time at which the next paroxysm is due. Said my distinguished teacher, Prof. W. H. Bowling: "If I had but a single dose of quinine with which to break up an intermittent fever, and my life was staked on my success, I would watch the patient like a hawk, and whenever he broke out into a sweat I would let him have it."

In remittents there are some differences of opinion with reference chiefly to two points; (1) Whether any preparation of the patient is necessary as a preliminary to the administration of the quinine; (2) Whether it is best to give the quinine as promptly as possible even when the fever is at its highest, or to wait for the remission; and these two aspects of the question run naturally into one another.

Many skillful practitioners still favor the old custom of emptying the bowels, depleting the portal circle, reducing inflammatory complication, when they exist, by mercurial purgatives, blisters, and other antiphlogistic remedies, and waiting for a remission before the exhibition of the quinine. The drift of professional opinion, however, in Alabama, seems to be in favor of depending upon the quinine as the leading remedy in every stage of the fever, giving it in full doses during the height of the fever as an antipyretic; and during the remissions, also in full doses as an antiperiodic to prevent the return of the fever. There can be no doubt that good results are reached by both methods. For myself I think that the quinine acts much more efficiently and much more pleasantly when given in the

remission; and when there are inflammatory complications it is certain that the fever cannot be completely subdued until these are eliminated.

It is with regard to hemorrhagic malarial fever, however, that the greatest diversity of opinion is found to prevail. This disease is attended with too much danger to admit of timid treatment, and its malarial origin being conceded, it was the most natural thing in the world to reach the *a priori* conclusion that the energetic administration of the great anti-malarial remedy was the proper way to combat its ravages. Soon after the war, when this form of disease prevailed very extensively in many parts of the State almost, or perhaps altogether, all of our physicians adopted the quinine treatment. It was soon found, however, that under this treatment the mortality was discouragingly great. It was also found that after the subsidence of the hæmaturia even a moderate dose of quinine was often sufficient to re-establish it. The consequence has been that the efficacy of the quinine in this disease has become a matter of very grave question; and that many physicians who a few years ago were earnest advocates of its use, are now equally earnest in their opposition to it. A considerable number, on the other hand, who have had large experience in the treatment of this formidable fever still contend that quinine is the best remedy for it; that if the mortality under the quinine treatment is large, it is still larger under all the other methods of treatment that have been advised; and that the reappearance of the hæmaturia is not necessarily a symptom of bad omen—being, indeed, as they contend, nothing more than the depuration of the blood by the excretion of the disorganized red corpuscles. I have myself had too little experience in the management of hemorrhagic malarial fever to warrant the expression of any opinion in regard to the point under discussion.

2. *The uses of quinine in other malarial maladies, such as dysenteries, neuralgias, bilious colic, etc.*

There is a very general agreement as to the value of

quinine in neuralgias, particularly those characterized by intermissions or remissions. The testimony is more conflicting in regard to its use in dysenteries, although the majority of my correspondents speak of it in favorable terms. Several of them have found it more decidedly efficacious in autumnal and winter dysenteries than in those occurring in the spring. Can it be that autumnal dysenteries are more decidedly malarial? The testimony is still more conflicting in regard to the curative value of quinine in bilious colic. The weight of opinion, however, is favorable to its use. Some of my correspondents have found it beneficial in spasmodic colics, not in colics free from spasmodic perturbations. I have been long accustomed to look upon bilious colic, as it presents itself for treatment in the Southern States, as a malarial neuralgia of the bowels, most frequently attacking the colon, but sometimes also having its seat in the small bowels. Several years ago it was of common occurrence in the southern portion of the city of Mobile, a section of the city which was at that time quite subject to malarial fevers, and it fell to my lot to treat a great many cases of it. It is not always an easy disease to treat, and I have known cases in the hands of skilfull physicians to linger for one or two weeks, and even longer. The treatment adopted by myself was energetic and successful to a very gratifying degree, as is proved by the fact that in a large majority of instances I was able to discharge my patients on the third day. For the relief of the pain and spasm of the bowels, I gave chloroform by deglutition in heroic doses—often in extreme cases in doses of half a fluid ounce repeated every half hour until the desired relief was obtained. One dose was usually sufficient, but sometimes two were found necessary, and occasionally three or four. I followed the chloroform with an active mercurial cathartic, and finished the treatment by one or two full doses of quinine. I desire to state, with emphasis, that these cases were usually of very grave character. For the last ten or twelve years, I have seen very much less of the disease, and the cases have been very

much milder, and amenable to much milder treatment. It has been asserted that nobody ever dies of bilious colic; but such is not the testimony of the books; and I have myself seen one death from this cause. It was the second or third annual autumnal attack occurring in the person of a very powerful negro drayman. The abdominal wall was retracted until it seemed literally to lie against the vertebral column, and was as hard as a board. The pain was the the most intense that I have ever seen in any human creature, and was not relieved, indeed seemed hardly to be lessened, by chloroform and morphine given in quantities as large as I dared to venture upon. Even when under the potent temporary influence of the morphine, his eyes closed in imperfect sleep, he still groaned and writhed in agony. This patient died. The *post mortem* examination was a singular revelation. There was no sign of inflammatory action, but the whole length of the bowels, from the stomach to the anus, with the exception of a few loops here and there, was contracted into a mere cord not larger than a man's finger, even the sacculated appearance of the colon being completely obliterated.

3. *The uses of quinine in the continued fevers, and the quasi continued fevers, such as typhoid fever, typho-malarial fever (so-called), mountain fever, gastric remittent fever of children, continued malarial fever (so-called), etc.*

Under this head, the testimonies received relate almost exclusively to typhoid fever, typho-malarial fever, and continued malarial fever; and a good deal of confusion grows out of the fact that these names are not always, or even generally used, to designate clearly differentiated diseases. Before the war, for several years epidemics of undoubtedly genuine typhoid fever prevailed in many parts of the State, and it was then the well-nigh unanimous conviction of our physicians that this fever was very little, if at all benefitted by the use of quinine, although the abortive quinine treatment of Fenner was tried by many of them. During the last

four or five years, a continued fever has presented itself in various sections of the State, and more especially in the northern and mountainous portions of it, about the nosological position of which there has been much difference of opinion. So far as I know, although there have been many deaths occasioned by this fever, there have been no *post mortem* examinations made to clear up the diagnosis. It has been indifferently called by some typhoid fever, by some typho-malarial fever, and by some continued malarial fever. Most of the testimonies here given relate to this fever, though a few of my correspondents undertake to distinguish between typhoid and typho-malarial, or continued malarial fever, the last two designations being regarded as synonymous.

It is admitted, to begin with, that none of these fevers can be cut short by quinine, in whatever way it may be used. It is also admitted that during convalescence from any of them, quinine is a good tonic. The question at issue is, whether in all of these fevers, or in any of them, quinine can be so used as to favorably modify the course of the disease and diminish the mortality? and to this question three several answers are given: (*a*) That in all of these fevers the antipyretic use of quinine is decidedly beneficial. (*b*) That in none of them can quinine be used, antipyretically or otherwise, with any prospect of advantage. (*c*) That quinine is useful in typho-malarial or continued malarial fever, but either useless or mischievous in true typhoid.

Those who advocate the antipyretic use of quinine in these fevers contend that their medical brethren who have failed to derive benefit from it have not administered it in the proper way—have either failed to give it at the proper times, or in adequate doses; while those who oppose the antipyretic use of quinine in these fevers admit that it is possible in this way to reduce the temperature, but contend that the reduction is obtained at the expense of too large a draft on the nervous energies. The favorite method of administration by those who employ the antipyretic treatment is to

give one full dose of quinine—say from twenty to thirty grains—at bedtime. When given in this way it is claimed that the quinine diminishes the fever, reduces the nervous excitement, and promotes sleep, so that the patient wakes up next morning feeling refreshed and improved.

4. *The uses of quinine in various zymotic diseases,—such as yellow fever, dengue, septicæmia, diphtheria, cerebro-spinal fever, small pox, measles, scarlet fever, etc.*

The opinions of my correspondents in regard to the uses of quinine in zymotic diseases are so various and conflicting as hardly to admit of disentanglement and systematic statement. Some advise the use of the remedy in all the zymotics. Some, on the contrary, condemn its use in all diseases of this class. Some find it advantageous in septicæmia, diphtheria and cerebro-spinal fever; while others condemn its administration in these same maladies. In the eruptive fevers its value seems to be even more questionable still, although several correspondents speak well of it in measles, particularly for the prevention of lung complications.

The testimony as to its value in yellow fever is extremely meagre, and what there is is unfavorable. I may be allowed to add in contrast with this, that in the city of Mobile it is almost the universal custom to begin the treatment of a case of yellow fever with one or two decided doses of quinine in combination with calomel—say twenty grains of calomel and thirty grains of quinine at a single dose. It is claimed for this treatment that it empties thoroughly the alimentary canal, and modifies favorably the subsequent progress of the fever. However this may be, it is certain that yellow fever patients at the outbreak of the disease are remarkably tolerant of quinine, and that these large doses produce no unpleasant symptoms.

5. *The uses of quinine in rheumatism, pneumonia, bronchitis, pleurisy, and other phlegmasia; and in other diseases that I have not mentioned by name.*

There is a very general agreement that quinine is a valu-

able remedy in rheumatism, although no special details are given; this perhaps for the reason that its exhibition in this disease has been almost entirely superceded by salicylic acid and its salts. In pneumonia, and especially in asthenic pneumonia, its value seems to be universally recognized. It is mentioned with some favor in bronchitis. In pleurisy it seems not to have acted so well. It is favorably mentioned as a restorative and expectorant in phthisis; and as almost specific in spasmodic croup.

6. *The use of quinine as an antipyretic. The physiological reactions of quinine. The toxicological effects of quinine. Curious idiosyncrasies in regard to quinine. Doses, intervals, and methods of administration.*

The antipyretic uses of quinine have been already sufficiently discussed in connection with the continued fevers. There has been in the medical profession a somewhat widespread belief that quinine is endowed with ecbolic properties, and that its administration to pregnant women always involves some danger of miscarriage or abortion. The evidence here collected entirely disproves this presumption, and shows very clearly that in malarial regions quinine, by obviating the nervous perturbations and the visceral congestions attendant on malarial poisoning, may become the most potent of all agents for the prevention of premature parturition. Further than this, this evidence also shows that at full term and after the commencement of normal labor, quinine, acting as a uterine tonic, may very materially assist the progress of delivery by the relief of uterine inertia; and at the same time and by virtue of the same properties serve as a prophylactic against subsequent post partum hemorrhages, congestions, and sub-involutions.

Toxicological effects, unconnected with idiosyncrasies, have been very rarely observed, and have manifested themselves mostly in the shape of temporary deafness, temporary impairment of vision, and nervous erethism—conditions rarely if ever permanent. Idiosyncrasies, to the influence

of quinine, while not notably numerous, are not sufficiently rare to be ranked as medical curiosities. In some few persons the system is so sensitive to the action of quinine that the smallest doses prove poisonous, and so prostrate the nervous energy as imperatively to prohibit the administration of the remedy under any circumstances whatever. In some, small doses provoke very troublesome tinnitus aurium, partial or even quasi complete deafness and blindness, and other nervous troubles. In some, it acts as an emetic; in some as a cathartic; and in some it produces an intolerable sense of smothering and suffocation. Several cases are recorded in which, in small doses, it always produced hæmaturia, which fact becomes of some speculative importance in connection with its bad reputation in the same direction in hemorrhagic malarial fever. The most common of all the quinine idiosyncrasies are those that result in the production of cutaneous eruptions—most usually in the shape of patches of erythema or urticaria. To most persons the quinine bitter is extremely disagreeable; there are many, however, who find it tolerable; and a very small number to whom it is decidedly pleasant.

7. *Illustrative cases.*

These hardly admit of summary statement, and can be best consulted in the body of the testimony.

8. *Bibliography.*

I have collected a considerable amount of material for the bibliographic sketch with which it was my purpose to close this paper. But I am satisfied that there are many articles by Alabama physicians that have so far escaped my notice; and as the value of any such sketch depends largely on its accuracy and completeness, I have concluded to defer the printing of this part of my undertaking until next year.

THE RECENT PROGRESS IN GYNECOLOGY.

BY WILLIAM H. JOHNSTON, M. D., OF SELMA,

Ex-Vice President, Senior Counsellor of the Medical Association of the State of Alabama, and member of the Board of Censors and Committee of Public Health.

The writer, when he has a subject for his essay with which his audience is familiar, necessarily approaches it with some degree of hesitation. And in this instance the one assigned to me compels me to speak of things that your familiarity with may make it somewhat tiresome for you to listen to. But if I am to speak of the recent progress in gynecology, you will readily see that it is hardly possible for one engaged in a general practice to do so without mentioning many things which are known to the medical profession of to-day like household words.

One of the most pleasant of things is to impart information to those who are eager to receive it, who will not only willingly receive it, but give others the benefit of it also. When we have something new, and which our own experience has taught us is far better than anything in the past, it is really refreshing to impart such information, and we can generally do it with a zest. But few of us are so gifted that we can give delight to our hearers by repeating to them things with which they are familiar. And I regret to say that I am not one of the fortunate exceptions to this rule. But I will promise you this much while treating of the subject before me—that I will enter very little, if at all, into details, and will touch but lightly on those subjects most familiar to you all.

For the purpose of studying the recent progress which has been made in gynecology, it will be necessary to make

some division of those organs peculiar to the woman, and then, if necessary, we can investigate the diseases incidental thereto, and note the progress made in diagnosis, pathology and treatment. The division we make is an arbitrary one; we will divide the subject into—firstly, the uterus; and secondly, its appendages. The uterus is composed of a peritoneal covering, muscular walls, and a mucus lining, each layer liable to disease peculiar to itself. Under the head of appendages we propose to include the ovaries, Fallopian tubes, broad ligaments, vagina and perineum.

Of course it is not expected in a short essay, and one of the character of the present, to investigate all the diseases peculiar to the organs which I have named, and to see thereby, if any advance has been made recently. It is our purpose though to name, as well as we can, those advances which have been made of late, and which have been most useful to the general practitioner of medicine.

Under our first division, the uterus, which we have subdivided into three layers, viz: peritoneal, muscular and mucus, we will take up the peritoneal layer, and the only disease of that layer we will mention is pelvic peritonitis. So far as the pathology and symptoms go in this disease, we cannot safely say that we have made any advance. But when we come to compare the treatment of to-day with that of fifty years ago, of thirty years, of twenty, we find a very great change. Take up the medical literature of the past, and the main reliance in the treatment of pelvic peritonitis was general blood letting, local blood letting, and calomel until the gums were touched, and that meant salivation in most cases. A healthy, and sound woman, after such a course of treatment, would have been weeks regaining her health and strength. The treatment of to-day of that disease by the majority of our profession is to give opium in sufficient quantity to relieve pain, and then apply a blister over the hypogastric region; and later on in the disease—I mean after the acute symptoms are allayed—to give iodide of potassium. The results of the present treatment, as com-

pared with the past, is far better if we accept the verdict of the majority of the profession.

The next larger of the uterus we take up is the muscular coat, which constitutes the main body of the organ. It is frequently the seat of fibroid tumors, and we will mention only them in connection with this coat. They have been divided according to their situation into sub-peritoneal, interstitial and sub-mucous. The cures in the past were confined to the sub-mucous variety. The interstitial and sub-peritoneal were given up as hopeless, and great numbers died from these tumors. To-day I am happy to say that we consider none hopeless, and cure some of all the varieties, and frequently without the aid of the surgeon's knife. Large numbers are cured by hypodermic injections of ergotine or ergot, others by the galvano-puncture, some by removing the ovaries, and in extreme cases where all other means have failed, by the removal of the uterus itself with the tumor. This operation has now been performed more than a dozen times, and with success. Any operation is justifiable which saves lives, and relieves pain. It was thought in the past that no medical treatment could be of any permanent benefit to sub-peritoneal fibroids. Hypodermics of ergotine have removed even sub-peritoneal fibroids. One case, under my care, some six years since, of this last variety, was permanently cured by hypodermics of ergotine, and is now well. Another case, in a negro woman, who, when she was brought to my office, was blanched from the loss of blood; she had come ten miles in a wagon. Her underclothing was saturated with blood, and her stockings had a great deal in them. Upon examination the uterus was immovable, but I could trace out three distinct tumors. She had been suffering from hemorrhages for some time previously, but had been able to do some work until about ten days before she came to me, and as she seemed to be daily growing worse, she came for treatment. I first gave her teaspoonful doses of Squibbs' fluid extract of ergot every two hours, and directed her to continue it until hemorrhage

ceased, and then to take it three times daily for a week or more. She came back in ten or twelve days and told me that the medicine would not control the hemorrhage any longer, that it at first controlled the hemorrhage, but now it was returning. I then gave her powders of ergot and gallic acid, containing ten grains of each, and directed her to take one every two hours until all "flow" ceased, and then three daily for a week, and then I gave her the ergot alone for three months. I examined her at the end of three months, and there was a decided diminution in the tumors. I think they had diminished at least one-half in size. She is now well, and has been so for four or five years. I gave her muriate of ammonia after my last examination in ten grain doses for two or three months, but I did not ascribe the cure to that, but believe that the ergot did it.

The mucous layer of the uterus comes next, and in late years a very decided advance has been made in the treatment of acute endo-metritis, and the same treatment in all engorgements of the uterus. This treatment consists in hot water douches to the uterus, and then packing cotton wads, soaked in glycerine, around and against the neck of the womb. This treatment depletes the womb more thoroughly and effectually than any other known means. The worst back-aches and uterine pains due to acute engorgements, I have seen speedily relieved by this treatment. It is almost incredible to believe the quantity of water that this treatment will cause to flow from the womb. Within the last few years a physician told me he was having a great deal of trouble treating a case of chronic engorgement, and asked my advice. I told him to pack the vagina with cotton wads saturated with glycerine, and to see that they rested against the womb, and to do this daily. He wrote me the next week that his patient was feeling all right, and better than she had been for months, but that she thought her bladder had bursted; that on the first day after the packing the water wet her bed and ran through the bed clothes and wet the floor, and he wanted to know if that was all right. It is

necessary that the cotton wads should be thoroughly saturated with the glycerine, and some should be in contact with the uterus. Where there is much hyperæsthesia of the uterus it is well to add iodoform to the glycerine.

In the past, and up to a few years ago, many lacerations of the cervix uteri were treated as erosions of the os with chronic engorgement. I have seen them when it was a difficult matter to tell whether it was not a corroding ulcer or some other variety of cancer.

Emmett first drew the attention of the profession to these cases and showed them to be lacerations, and that by reuniting the torn parts, whatever unfavorable symptoms the patient may have had would disappear. Dr. Herrick, of Grand Rapids, Michigan, has simplified Emmett's operaation by using a rubber band to hold the torn parts together, after having pared the edges. The band takes the place of the silver sutures. Sheets of lead and pieces of tin with holes in them, he has also used successfully for the same purpose. He never puts a patient to bed for this operation, and tells me he has performed it repeatedly in his office and let the patient go on with her daily avocations. It is certainly tough work putting a needle through the cervix. The old plan was to use caustic applications in the treatment of these cases, and if the laceration was extensive and the lips of the uterus everted to any great extent, the cures were only temporary. In a few weeks or months the cervix uteri would present the same eroded state that was present when the previous treatment was begun. By paring the edges of the laceration, and closing the rent, either with silver sutures or the rubber band, a cure is completed in a week or ten days.

Another advance, is the use of hot water injections to control uterine hemorrhages. I have directed a gallon to be used every three hours, and succeeded in arresting the "flow," when ergot had been used without giving relief. It is also a great aid in the treatment of many of the diseases of the uterus. It is used, too, in the various opera-

tions to arrest the oozing of the blood that occurs at the time, by putting sponges into the hot water, squeezing them and then applying the sponge to the freshly cut surface. Uterine hemorrhage, due to a granular condition of the mucous membrane, is now relieved by a thorough scraping with the curette. Hemorrhage, due to sub-involution of the uterus, is treated by sponge tents introduced into the cavity of the uterus, once in a week or ten days, hot water injections and the internal administration of ergot and nux vomica.

In the non-pregnant uterus, and in all ante-partum hemorrhages, the tampon is the most certain of all known means to arrest the hemorrhage. When the vagina is thoroughly tamponed it is almost an impossibility for hemorrhage to occur externally, and then not more than a trace, if at all.

The safest treatment in cases of impending abortion, where it cannot be arrested, is to thoroughly tampon the vagina, and then the patient can be left without fear of consequence. The treatment of to-day, for its arrest, is absolute rest in bed, not to sit up, or raise the head even, and if in pain, to give opium or some of its preparations in sufficient quantity to ease the pain, and then administer at the same time the fl. ext. of viburnum prunifolium or opulum, and one or two minims of Squibb's fl. ext. ergot, every two, three or four hours, according to the urgency of the symptoms. I have seen cases arrested by this treatment when the os uteri was dilated sufficient to admit the index finger, and the membranes were at the same time forming.

It is not considered safe to tampon while there is any hope of arresting the abortion, because the blood oozing out will collect in the womb and help to detach the placenta.

We will take up the ovaries next, and if the present generation rested their claims for meritorious recognition upon the progress made there alone, I think there would be few to deny their claim. The results which have followed the removal of ovarian tumors have been most brilliant. The

death rate has been reduced from twenty-five to fifty per cent., comparing it with the past.

The man who deservedly stands on the top round of the ladder, the greatest living ovariotomist, is Keith of Edinburgh. If I am not mistaken I think he saved over ninety per cent. in his last hundred operations. His success has been due to the antiseptic treatment, and his careful mode of operating, and also to never closing the abdominal wound until every oozing vessel has been stopped and the abominal cavity dry from blood. His mode of operating has been minutely described by a man whose name will never be forgotten while the science of gynecology lasts. I refer to Dr. J. Marion Sims. To that description I refer my hearers, and will, therefore, not repeat it here.

The removal of one or both ovaries for chronic disease, and where the woman's life has become a burden to her, is now a recognized surgical procedure. This operation was first devised and performed by a near neighbor of ours, Dr. Battey, of Rome, Ga., and is now known to the medical profession of the world as Battey's operation.

Before leaving the ovaries and the uterus, I will state that for the purpose of diagnosis many surgeons have anæsthetized their patients, and introduced the hand into the rectum, and by this means cleared up points which could not have been determined without an operation. The female urethra, too, has been dilated and stones removed from the bladder, where, in the past, the knife would have been used.

It is in the memory of those amongst us now, that many women dragged out miserable existences from vesico and recto-vaginal fistulæ—cut off from society on account of this lamentable state. It is difficult for those of us of today to realize that a little more than thirty years ago that many such women existed throughout this land. To succeed in curing a case was the exception to the rule. Silk sutures were used when operated upon, and caustics applied in other cases. A complete revolution was made in these cases when our own Sims gave us the silver suture, and

cured a case by its use, after having, I think, operated thirty times on the same patient. Sims' speculum and the silver suture brought about a new era in gynecological surgery. Renewed zeal was aroused by these discoveries, and many new workers sprang up, and devoted their time, labor, and brains to gynecology. Perhaps it is not too much to say that Sims was the father of modern uterine surgery. After Sims' discovery was made known, it was exceptional to fail to cure an ordinary case of fistula, if the operator displayed only moderate skill. And to-day, a patient suffering from these troubles is not compelled to go hundreds of miles to find relief, but can get it at her home.

One of the most recent advances is in the treatment of a ruptured perineum. Formerly, and until the last year or so, it was customary, after the operation of closing the perineum had been completed, to take means to prevent the patient's bowels from acting for one or two weeks. But now, after forty-eight hours elapse, the physician sees that his patient has a soft action daily from the bowels, and for that purpose generally gives the compound liquorice powder. And another thing insisted upon was the use of the catheter daily to empty the bladder. Many now say that is unnecessary, and permit the patient to empty the bladder without the use of the catheter, and claim that union takes place just as well. Others say that it is not necessary to use the catheter, but whenever the patient voids urine, that a weak solution of water and carbolic acid, a little warm, should be used in gently syringing the vagina. I am strongly inclined to think that the syringing with the disinfectant water is sufficient for all practical purposes, as I have seen union take place in two cases where this was the main reliance.

One word more before I dismiss this subject, and it is this—to condemn *in toto* the practice of constipating the bowels for a week or more. When constipation is kept up for a week or ten days, the fœcal matter takes the form of hard, round lumps, and with all your sweet oil,

ox bile and warm water, you will not get it soft, and these lumps in passing, with all the care you may give, not infrequently break up the recently united tissues. I am sure I have had this to happen in a patient of mine, where I tried to use every precaution to prevent it. And then, again, this daily movement of the bowels is very much more agreeable to the patient.

While I was speaking of the mucous lining of the uterus, I omitted one thing which I intended to say a few words about, and that was chronic endo-metritis. The majority of general practitioners are seldom called upon to perform any of the graver operations in gynecology. The patients who are able to pay, go as a rule to a man who makes a specialty of this branch, and those of us who are inclined to operate, can not afford to provide ourselves with all the appliances and instruments, and to keep on hand a trained nurse, and then do our work for nothing. Therefore, the general practitioner is not as deeply interested in the more serious gynecological operations. He is far more interested in the treatment of cases that he meets with daily in his practice. There are none of us who do not come in contact with chronic endo-metritis, and if you take up the medical journals to learn something about the treatment, you will find scarcely anything upon it. I can give you what in my hands I have found most successful in treating these cases. I never now make any other local application in these cases but different solutions of carbolic acid and glycerine (pure carbolic acid), and in very severe cases, one part of the crystals of iodine to two of carbolic acid. These applications rarely give any pain, and nine cases out of ten commence improving after the fourth or fifth application, and the patient feels better. The weak solutions I apply every three days, the strong every five days.

There is another rule which is well to remember, and is as beneficial in the treatment of gynecological diseases as elsewhere in the body, and it is this—that blisters almost invariably do good when a serious membrane is inflamed, and

that iodide of potassium is almost a specific where there is disease of white fibrous tissue, accompanied with pain, which grows worse at night. This last knowledge has helped me out of a good many difficulties. I can recall now a case of ovaritis, which had driven me to the wall after a month or six weeks of treatment, and I seemed to be as far from doing her any good as when I commenced. The husband told me he intended taking her to New York. I had been there day after day, and night after night. During that long time to me, I had found out one thing from my sad experience, and it was this—that the pain always got worse at night, and eased up some during the day. I said to myself, iodide of potassium ought to do good here, and I ordered ten grains to be taken every two hours. The first dose relieved the pain, and after the second, she went to sleep. She took the third dose, and within two hours, or perhaps not quite that time, I was sent for in a great hurry, and found my patient suffering with intense frontal pain; eyes suffused and watery, nostrils running water, and the parotid glands swollen. She presented the appearance of a bad case of mumps, with incipient measles. She was all right in the course of twenty-four or thirty-six hours. I found then that she could not take more than two grains three times daily. I kept that up for a month, and my patient has never since then had a recurrence of the trouble.

I suppose it would not be the proper thing for me to close an essay of this kind without having something to say about the various speculums, instruments, pessaries, &c., and also something in regard to the treatment of displacements of the uterus. I confess that I approach this subject with some degree of hesitation, and dread; the field is a large one, and would take a specialist to advise one rightly, provided he had no inventions of his own among the number.

For diagnosis and treatment it is necessary to have a good speculum, and of all the different varieties for a general practitioner, I consider Nott's the best.

If one is desired for operations on the vagina or uterus,

Hunter's modification of Sims' is, in my opinion, the best, as it is self-retaining and gives you plenty of room for operating. Dr. Herrick also has invented a good self-retaining one, a modification also of Sims'. If one has a trained nurse to hold it, Sims' is as good as any one could desire.

Then we have various dilators, for dilating the uterine cavity, and which are very useful, and enables one to introduce sponge tents with ease. And we have sounds which show you the exact displacement of the uterus.

I can't work myself up to the point to go into the discussion of pessaries, as I do not believe that but very few cases of chronic displacements are cured by wearing them, but I know they give relief. I use the block tin, rubber rings, and one that I have made myself from joining rubber rings with silver wire, and which I have found very useful. It can be used for either ante or retro-flexion, and does not cause any inconvenience to the patient. In the flexions, I am in favor of using Hawk's dilators and sponge tents in order to relieve it permanently. The canal is straightened in this way and gives an opportunity for the circulation to be restored in the weakened part. When pregnancy takes place it relieves these flexions. In prolapse some late writer claims that it can be entirely relieved by a cotton tampon soaked in a solution of glycerine, with alum and carbolic acid. The proportions were eight ounces of glycerine, one ounce of alum, and one drachm of carbolic acid. I think if the patient can be put to bed and made to assume the proper position, and then daily packed with cotton wads soaked in glycerine, that most of these flexions could be cured. If the case was one of retro-flexion, the patient should be placed in the knee and elbow position, and then pack the cotton in the posterior vaginal cul de sac, and keep her in the prone position as much as possible. For anteflexion, of course the proper position would be on the back.

I am fully aware that this short and hasty sketch of my subject is a very imperfect one, and also that I have had most ample time to have done the subject full justice. But

when I had most time I felt least like undertaking my subject. There are, doubtless, many things that should have a place in these pages that I have omitted, and some here that ought not to have been inserted. Too many of us put off a duty until we are driven to it, and I, in this instance, have not been an exception to that rule. But I will, at any rate, now cease to trespass upon your time.

THE ALCOHOL QUESTION.

BY JEROME COCHRAN, M. D.,

Grand Senior Counsellor of the Medical Association of the State of Alabama, Senior Censor of the Medical Association of the State of Alabama, and State Health Officer of the State of Alabama.

The great physiological and sociological problem which may be comprehensively designated as the alcohol question, was introduced into the discussions of the Medical Association of Alabama by Dr. A. J. Reese in the shape of a series of propositions which were submitted by him on the second day of the Montgomery session of 1881. In substance, although not in express words, these propositions are as follows:

(1) That alcohol cannot by any ingenuity of reasoning be reckoned among the foods or necessities of human beings.

(2) That alcohol supplies materials neither for the construction of tissues, nor for the evolution of heat.

(3) That contrariwise alcohol injures construction and lessens vitality.

(4) That alcohol is to an alarming extent a prolific factor in the generation of diseases, particularly those of a neurotic character, such as paralysis, imbecility, and insanity.

(5) That alcohol by the perversion of nutrition increases the liability to attacks of pestilential disorders, such as cholera, and malarial and yellow fevers, and increases their mortality.

(6) That alcohol produces deterioration, physical and mental, of the human constitution, which deterioration is transmitted to descendents.

As the logical outcome of these propositions, two resolu-

tions were presented at the same time, and to the following effect:

(1) That we welcome as sanitary measures all laws which restrict the use of alcoholic beverages amongst the people.

(2) That we believe the social, industrial, political, moral, and physical advancement of mankind would be promoted by the stay of alcoholism.

Parenthetically, I may remark here that I do not quite understand what is meant by the "stay of alcoholism;" and so am not quite able to understand the scope of this last resolution.

Dr. Reese's propositions and resolutions grew out of two essays which had been read before the Association on the same day; one entitled "Alcohol as a Medicine and a Beverage—A Plea for Prohibition," by Dr. Peter Bryce; and the other entitled "The Relation of the Medical Profession to the Liquor Traffic," by Dr. James T. Searcy.

On this occasion I was not willing that the Association should give its formal endorsement to the doctrines developed in the essays, propositions, and resolutions I have mentioned; because I believed that the scientific validity of some of them was more than questionable; and at my suggestion a committee was appointed to consider the whole alcohol question, both in its scientific, and in its practical and legal relations, and to report to the Association at some future session.

This committee, composed of Dr. Peter Bryce, Dr. A. J. Reese, Dr. James T. Searcy, Dr. William H. Anderson, and Dr. William H. Johnston, presented its report at the Mobile session of the Association last year. In this report the committee undertake to show:

(1) That alcohol is not a beneficent or harmless luxury.

(2) That alcohol is not a food.

(3) That alcohol even as a medicine is of very questionable value, and should be prescribed only with the utmost caution.

And finally they sum up their conclusion of the whole matter in the following preamble and resolution:

WHEREAS, It has been shown by late scientific research, and is abundantly confirmed by our own professional observation and experience, that the popular and indiscriminate use, both as a medicine and as a beverage, is sure, sooner or later, to exert deleterious influences upon the health and vigor of both body and mind; and that this deterioration of constitution, physical and mental, is often transmitted to descendants, producing idiocy, imbecility, inebriety, paralysis, and a host of other neurotic disorders; *And whereas*, We are further convinced that the future industrial, social, and moral advancement of our people, as well as their immediate health, happiness and prosperity, will be largely promoted by the judicious suppression of the liquor traffic, or its limitation to the legitimate purposes of medicine, science and art;

Therefore, be it resolved, That we earnestly invite the attention of our friends, patrons and fellow-citizens, especially our legislators, to the statements and conclusions embodied in the foregoing preamble, and will actively favor and support any judicious measures or efficient legislation which looks to the suppression of the evils therein portrayed.

A somewhat animated discussion followed the presentation of the report. Again, as on the previous occasion, the report and the resolution seemed to me not to be in entire accordance with the general drift of human experience, nor with the most authoritative deliverances of experimental science, in regard to the questions at issue; that the arguments adduced were partisan and one-sided, even when they were true—a part of the truth and not the whole truth; that many of the quoted testimonies were either palpably untenable, or else great exaggerations of the real facts; that the conclusions announced in the preamble were vague, general, indefinite, and inconsequential, and lacking in scientific accuracy and comprehensiveness; and that the resolution was not such as befitted the character of a great scientific association seeking to give direction to public opinion—not such brave and solemn words of warning and advice as a State Board of Health should address to the people and to the law-makers of the State, provided said board was really willing to give its endorsement to the scientific veracity of the arguments contained in the report. I was, therefore, for the second time, under the disagreeable neces-

sity of obstructing the action of the Association in regard to a matter in which to many of its members its duty seemed to be, not only clearly evident, but almost imperative. In the meantime, the Association was too much hurried by pressure of pending business, and I was not sufficiently prepared, whatever may have been the case with other members, for the full discussion which the importance of the subject demanded. I, therefore, moved that the further consideration of the whole matter should be again laid over; and this motion was agreed to on my promise to present my views upon it in writing at our next meeting—that is to say, during our present session.

Having thus given a brief account of the circumstances that have given rise to the essay I am about to read, I proceed to review, as briefly as I can, some of the arguments presented by the committee, and relied upon generally by the advocates of prohibition.

THE INDICTMENT AGAINST ALCOHOL.

Quoting from the work of Dr. Hargreaves on "*Alcohol and Science*," the committee assert:

> That the experiments of Drs. Richardson, Parkes, Count Wallowicz, W. A. Hammond, and others, demonstrate that alcohol, when administered in quantities sufficient to produce distinct effects, makes the blood unduly thin, or coagulates it, according to the quantity carried into the circulation, * * * * It paralyzes the minute blood vessels that form the terminal arteries in which are carried on the vital acts of nutrition, the production of heat and force. * * * * It paralyzes the fibres of the organic and vegetative nervous systems that control the minute vessels, and in consequence there is driven in on the nerve centres an abnormal supply of blood, first exciting and then blunting nervous actions.
> * * * * Not only are the brain and nerve centres paralyzed, but also the vital organs, as the lungs, liver, kidneys, etc., whose fine vascular structures are controlled by the nervous current.

These are sweeping assertions, and ought not to be made without very abundant and definite proof. Now I have read the published accounts of all the experiments mentioned at the beginning of this indictment; and I have also

read the accounts of many experiments not here mentioned at all; and if any or all of them furnish evidence in support of these astounding conclusions, I have not been able to find it. Let us examine the counts of the indictment *seriatim:*

1. *Alcohol thins the blood.*

In all of these experiments I find no proof of this. It would be a very difficult fact to establish even if it did occur. Is there a normal thickness of the blood capable of being measured with sufficient accuracy to serve as a standard of comparison? I know of no such measurements and of no such standard amongst all the constants of physiology.

2. *Alcohol coagulates the blood.*

But how? and when? Everybody knows that any considerable coagulation of blood in the blood vessels during life would be instantly fatal. No such coagulation has ever been known to occur. In all the records of medical experience, since the world was made, not one single case of any such coagulation has been described. Or does the coagulation occur after death? Perhaps so; but it is a singular fact that in all the cases of *post mortem* examination after alcoholic poisoning, related in such works on medical jurisprudence as have fallen under my notice, whenever the condition of the blood has been mentioned at all, it is stated to have been fluid and not coagulated.

Alcohol, in a sufficient degree of concentration, does harden animal tissues, and does induce coagulation in albuminous fluids. But in such degrees of concentration it never finds its way into the current of the circulation; and it is, therefore, safe to say, that all of these confident assertions that alcoholic beverages induce coagulation of the blood of the men and women who make use of them, have been evolved from the internal consciousness of those who have given them utterance.

3. "*Alcohol paralyzes the minute blood vessels that form the terminal arteries.*" * * "*It paralyzes the fibers of the organic*

and vegetative nervous systems that control the minute blood vessels." * * "*It paralyzes the brain and nerve centers, the lungs, the liver, the kidneys.*"

Again, I must ask when? and how? and under what circumstances? The assertion is made without qualification, as if always and under all circumstances, in all quantities and in all combinations, the ingestion of alcohol was as an inevitable and necessary consequence followed by paralysis of all the vital organs. But to state the proposition in this clear and definite way is to expose, past all cavil, the utter fallacy of the assertions I have quoted. Every body knows that in the vast majority of cases the imbibition of alcoholic beverages is not followed by any such universal paralysis; is not followed by paralysis of all the vital organs; is not followed by anything that can be properly called paralysis of even one or two of the vital organs; is not followed, in any sense of words that warrants these sensational assertions, by paralysis at all. What is paralysis? It is destruction or abolition of function. But if the functions of the minute blood vessels, of the lungs, liver, and kidneys; of the brain and nervous centers, and of the organic and vegetative systems of nerves—if all these functions are abolished or destroyed in any human creature, that creature must at once cease to live. It may be freely admitted that in alcoholic poisoning, the result of the ingestion of enormous quantities of alcohol, partial paralysis of important nervous centers does occur, and does lead the unfortunate mortals thus poisoned strait through the gates of death. And it may also be freely admitted that the ingestion of narcotic doses of alcohol, not sufficient to cause death, is attended by temporary and partial paralysis of important organs.

But if it should be insisted that in the quotations under discussion, no more was meant to be asserted than that sometimes, to some slighter or less slight extent, alcohol, when taken in large quantities, may benumb for a time some of the vital organs, that is to say, may temporarily diminish the vital activity of some of the organic structures, then all

go about collecting statistics of the character indicated that would be otherwise than of doubtful validity—that would not have to be taken with many grains of allowance.

Let me illustrate the point I am trying to make. A doctor is called to see a patient who has a congestive fever, of which he dies. This patient has been a moderate drinker for years, and he has lived in a malarial region of country. I think most doctors would ascribe the fever, and the consequent deaths, not to alcohol but to malaria. We know that malaria induces periodic fevers in people who never taste alcohol. While, *per contra*, we know that all the alcohol in the world would never, in the absence of malaria, give rise to one single case of fever of the nosologic classification mentioned. It is contended that while the fever could not have existed without the malaria, it might not have proved fatal but for the superadded influence of the alcohol; when, then, I have this to say: That any such supposition seems to me to be very improbable, and at any rate it is utterly insusceptible of proof. Take another illustration. Dr. Richardson—the same Dr. Richardson the prohibition writers so love to quote—described in 1864 what he was pleased to call *alcoholic phthisis*. He tells us how he was led to the discovery of this never before described malady. He was physician to a hospital where, in the course of several years, he saw two thousand cases of consumption. In endeavoring to trace these cases back to their causes, he found a residuum of some two per centum that he was unable to place in the usual etiological categories. These were mostly men, between twenty-eight and fifty-five years of age, who had been habitual users of alcoholic beverages, but who were not drunkards. The story is too long to be told here in detail. Suffice it to say that Dr. Richardson came to the conclusion that this residuum of two per centum of his cases owed their phthisis to degenerative changes wrought by alcohol. To me the proof he offers seems to be altogether unsatisfactory. How many of the other 98 per centum of his cases, whose phthisis he ascribes to other

causes, were also habitual drinkers he does not tell us. But let that pass. As modern research reveals more and more the close approximation of consumption, in the leading facts of its natural history, with diseases of infectious origin, the more and more gratuitous does Dr. Richardson's hypothesis seem to become.

Now these are some of the ways in which the so-called statistics that are adduced to prove the agency of alcohol in the production of diseases amongst moderate drinkers have been evolved. The more we study the question the more we find that all these imposing arrays of figures—imposing at least in latitudinal and longitudinal extension—are at the best the offspring of ingenious guess work, and as far removed from the reasonable probability of the accepted data of established science as the equator is from the poles. And yet it is upon such questionable data—upon the testimony of tables of statistics evidently constructed under the influence of preconceived opinions—made to order as it were—that the temperance people base their demonstrations of the tremendous potency of the habitual moderate use of alcoholic beverages in the production of diseases.

At the risk of being thought a little tedious, let us now examine a little more closely some of the statements quoted a little while ago from the report of the committee.

"*The moderate use of alcohol is the most fruitful of all the causes of sickness.*"

Can the committee have appreciated the full force of these remarkable words? We know that in all the temperate and warm climates of the globe malaria comes up out of the swamps and low places armed with malignant powers, and that it strikes down its victims literally by millions. But not even malaria, according to our committee, is so prolific of diseases as alcohol moderately used. Then we have the great zymotic pestilences—cholera, creeping out of the hot countries of Hindostan to desolate whole continents in its ruthless march around the globe—typhus and typhoid omniprevalent in the great capitals of Europe, and one of

them at least no stranger to our American experience—and yellow fever, the great American pestilence, that from its island homes in the West Indies has invaded all the countries that border upon the shores of the Atlantic ocean and its tributary gulfs and bays—but none of these shower diseases among the nations of the earth with such prodigal hands as alcohol even when used in moderation. And so I might go on and bring a multitude of other diseases into the lists—consumption that opens the gates of the dark valley to one-eighth of the civilized portion of the human race—and syphilis, which entails such dreadful penalties upon the frail descendents of Adam and Eve—and all the evils incident to sex and climate—but of what avail could this be when we have been assured in advance, "that statistics in abundance conspire to show that the habitual moderate use of alcoholic liquors is the most fruitful of all the causes of sickness?"

"*Statistics leave no doubt that the duration of life is inversely proportioned to the amount of alcohol consumed.*"

This is certainly a very neat formula—so neat, indeed, that it looks very much more like the offspring of *a priori* excogitation than of statistical tables and experimental science. Neilson's tables, which I believe are specially relied on to support this formula, I have not seen. I do not know how he obtained his data—do not know how he was able to separate any community, or any section of any community, into beer drinkers, spirit drinkers, drinkers of both beer and spirits, and total abstainers; and after this division was accomplished, I can not imagine how he was able to establish the rates of mortality in the several classes. All I know of these tables are the general results as given by the committee, and more in detail by Dr. Hargreaves. These are as follows: The mortality of the intemperate from 21 to 30 years is five times that of the temperate; and from thirty to forty years four times. The duration of life after the commencement of intemperate habits is: Among beer drinkers, 21.7 years; among spirit

drinkers, 16.7 years; among drinkers of both beer and spirits, 16.1 years.

Knowing, as I have said, nothing of the data upon which these conclusions are based, I have no criticism of them to offer. Only if the mortality of the intemperate is four or five times that of the temperate part of the population, it would seem to me that, by the natural operation of the law of the survival of the fittest, the world would very soon get rid of all its tippling families, and pass into the permanent possession of those prudent folk who look not on the wine cup when it is red. And all the more surely might this consummation be expected if habits of temperance descend by inheritance, as habits of intemperance are said to do.

While I am engaged in discussing the agency of alcohol in the production of diseases, and the misleading character of many of the statistical exhibits adduced to show the magnitude of the results following the moderate use of alcoholic beverages, it will perhaps be well enough to illustrate, at somewhat greater length, the sort of fallacies that lurk in statistical testimony.

It is a common saying that figures can not lie. And yet I know of no other symbols used by men for the registration of facts that lie more constantly and more outrageously than these same figures. It is, too, precisely when they are arrayed in the imposing forms of statistical tables that their mendacity attains its maximum of development, so that there is nothing that a wise man is more ready to regard with suspicion than an argument that bristles with Arabic numerals.

Not long ago, by considerations based on the several censuses of the United States, Professor Gilliam was able to prove, to his own satisfaction at least, that the black population of the Southern States is gaining so rapidly on the white population, that while now the whites outnumber the blacks at the rate of two and half to one, in one hundred years the preponderance will be reversed, and the blacks will be twice as numerous as the whites. This, I

think, is not a pleasant prospect for the sunny South; and for myself, while I am not able to expose the fallacies that lie hidden somewhere in Mr. Gilliam's tables, all the same I perversely decline to accept his conclusions. Indeed, there are a great many things that have been demonstrated over and over again, to the entire satisfaction of many, about which I remain obstinately incredulous.

All of us have heard of the statistics by which the homeopathists triumphantly prove the superior success of homeopathic medication over the methods of the regular profession—statistics exhibiting the tabulated results of the recorded experience in hospitals and in great epidemics. It might be a little difficult to expose the mendacity of these exhibits, and yet I am sure that none of us believe them. I may mention, incidentally, that I got a clue on one occasion to the explanation of homeopathic success in the treatment of yellow fever, in a statement gravely made to me by a distinguished practitioner of that school, to the effect that in 1878 some of his patients had three or four attacks of yellow fever all in the same season. I could understand well enough that the sort of yellow fever that repeated its invasions after that fashion would not be difficult to manage.

These illustrations may seem not to have much connection with the argument in which we are engaged. But I think otherwise about them. They show with what fatal facility statistics are spun out of imaginary facts by credulous philosophers. At any rate, my next illustration shall be in all respects of irreproachable propriety.

Perhaps no other book that was ever printed is so dear to the heart of the average temperance advocate as Dr. Hargreave's "Alcohol and Science." The author of it makes a great display of erudition, and quotes scientific writers by the score. I will not say that he is consciously dishonest; but at any rate, his book is thoroughly sophisticated and misleading. I have neither the space nor the time to indicate, even in a catalogue, his innumerable feats of logical legerdemain; but one example of it suits my purpose just now, and I proceed to quote it:

From the reports of the Pennsylvania Hospital for the Insane, the Massachusetts State Hospital at Worcester, and the Bloomingdale Asylum, New York, the nine principal causes of insanity are as follows:

Causes of Insanity.	No. cases Pennsylvania Hospital for Insane.	No. of cases Massachusetts State Hospital.	No. cases Bloomingdale Asylum.	Total No. cases in the three Institutions.	Per cent.
Ill Health	601	695	237	1533	32
Intemperance	243	194	117	444	9
Grief at loss of Friends	193	72	43	308	6
Puerperal State	152	141	99	382	8
Loss of Property	140	140	133	413	8
Religious Excitement	137	296	93	526	11
Domestic Troubles	87	413	65	565	11
Disappointed Affection	57	116	38	211	4½
Masturbation	50	270	37	377	7½
Totals	1660	2337	862	4759	...

This table is made up from official documents; and the analysis of the cases was the work of experts in mental diseases. A very eloquent table it is, too; and I regret that I can not stop to point out some of the lessons it teaches. But note now the commentary of Dr. Hargreaves:

By the above table, it is seen that more than nine per centum of all the cases of insanity in these three institutions is directly caused by intemperance. To merely take into consideration the cases given in the reports as being thus caused, we shall not arrive at anything like an approximate estimate of the (real?) number; for the friends will in most cases strive to keep out of sight, if possible, the drinking habits of the subjects of insanity, etc. * * * * Taking into consideration all the surrounding circumstances attending the use of intoxicating drinks, and the essential nature of alcohol, it will be safe to say that one-half of the cases ascribed to ill health, or sixteen per centum, and one-half of the cases of domestic trouble, or five per centum, are directly or indirectly ascribed to alcoholic drinks; then, the cases of insanity due directly or indirectly to intoxicating liquors will be nine per centum directly from intemperance; sixteen per centum from ill health; and domestic trouble five per centum; or a total of not less than thirty per centum.—*Alcohol and Science, pp.* 269-270.

In plain English, Dr. Hargreaves, who never saw the cases, claims to know a great deal more about them than the asylum officers who did see them, and complacently pro-

ceeds to doctor the returns so as to increase the number of those whose insanity ought to be ascribed to intemperance, not by some modest and probable fraction, but by wholesale —all the way from the official nine per centum up to a monstrous unofficial per centum of thirty. Whence comes Dr. Hargreaves' miraculous insight? In what way did he get possession of this marvellous perspicacity of diagnosis?

Now the simple truth is, that the investigation of the causes of insanity is always attended with a great deal of difficulty and uncertainty; and usually the causes are not one but several. Not to extend our analysis too far, there are, almost always, primary and secondary causes, or, from another point of view, predisposing and exciting causes. In the vast majority of cases the primary or predisposing cause is defective cerebral organization; while the secondary or exciting cause is very much a matter of conjecture; that is to say, it has to be guessed at; and the results of the guessing depends very much upon the man who does the guessing, and the mood of mind he is in at the time the guessing is done. It is safe to say that if several experts were all to examine the same congregation of insane persons, no two of them would reach anything like identical results in regard to all the cases. Nay more, it is perfectly certain that if identically the same patients could be presented to the same examiner at different periods of his professional career, the results of one of the examinations would differ notably from the results of the other. How preposterous, then, must be Dr. Hargreaves' speculative per centage.

Some curious deductions might be drawn from a thorough discussion of this table. Nine per centum of the cases, as we have seen, are ascribed to alcohol; and because of this fact we are expected to make war upon all the beverages that contain that seductive fluid. But eleven per centum of the cases is put down to "domestic troubles;" and another eleven per centum to "religious excitement." Are we, therefore, to make war on the venerable institution of the family which has been so long recognized as the most im-

portant factor of our civilization? and on the propagation of that still more venerable and saintly influence which we call religion, an influence which soothes so many of the secular ills of life, and opens the gates of paradise to the suffering nations of the earth?

DISEASE AS A CAUSE OF INEBRIETY.

Walking with a friend in Montgomery, a few weeks ago, he called my attention to a poor woman who presented one of the most extreme cases of spinal curvature I ever saw, explaining to me that she had been for many years a great opium eater, and then asked: "Do you suppose her opium eating had anything to do with bringing about the condition she is in?" My instant reply was, that I thought it much more likely that the condition she was in afforded an explanation of the opium eating—that it was almost certain that the appetite for opium had been provoked by the same organic changes that had resulted in the spinal deformity.

In a similar way I think we can very often trace the genesis of the alcohol habit to some diseased condition of the system clamoring for relief. In a word, I am fully satisfied that the agency of alcoholic beverages, in the production both of physical and of psychical diseases, have been greatly overrated, and that it is far more frequently the case that some organic degeneracy leads to inebriety than it is that inebriety leads to organic degeneracy. If alcohol is a poison, it is a poison for which the human organism exhibits a most remarkable tolerance. If it kills at all it kills very slowly. Year after year we see the sot soaking himself with whisky, wallowing in the mire, and making a brute of himself. The one thing that he ought to do and does not do, is to die. A very wise physician whom I knew a long time ago, and who had a great horror of drunkenness, used to say: "No, they don't die. They waste their substance, become burthens upon their families, dishonor our common human nature, and still persist in living on. If they only had the grace to die and get out of the way it would'nt so much matter."

Still I have no doubt that the average duration of life in drunkards, not in moderate drinkers, is less than the average duration of life amongst men who lead sober and prudent lives. But it does not at all follow that we must needs conclude, on the principle of *post hoc, ergo propter hoc*, that the only, or even the chief cause of their increased mortality is the alcohol they consume. I do not believe that the class of men who degenerate into drunkards would, as a rule, reach the average limit of life even if alcoholic beverages had never been heard of.

This argument is very forcibly developed by Mr. John McElroy in an essay entitled "The Economic Function of Vice." Making allowance for his somewhat effusive rhetoric, I think his contention is substantially true, and shall therefore quote it freely, as follows:

Competent English statisticians estimate that after a man has begun drinking beer in large quantities, it takes him 21.7 years to kill himself; and a whisky drinker shortens the time to 16.1 years. Intemperance being among the milder vices kills slowly. Sexual sins slay more rapidly; and the higher grades of vice do their work with a swiftness proportioned to their flagrancy. The psalmist says, 'bloody and deceitful men shall not live out half their days,' but police records will show that David materially overstates the average. 'One-quarter their days' would approach much nearer exactness.

Returning to the major premise, that the 'survival of the fittest' means the selection and preservation of those individuals who are most nearly in harmony with the conditions of their environment, and that the progress of the race or species involves the destruction of the weaker and inferior, who are not in such harmony, the conclusion follows that any aberration towards vice shows such a discordance in the individual with the laws of his environment as marks him as inferior, weak, and destructive of the race's development.

Vice is not so much a cause as an effect. Vice does not make a nature weak or defective: a weak and defective nature expresses its weakness and defects in vice, and that expression brings about, in one way or another, the sovereign remedy of extermination.

Temperance agitators fill our ears continually with wails as to how the 'demon Alcohol is yearly dragging down to dishonorable graves hundreds of thousands of the brightest and fairest of our land.' This is supreme nonsense. With very few exceptions, every one who goes to Perdition by the Alcohol route, would reach that destination by some other highway if the Alcohol line were not running.

Every man whose sloth or improvidence has brought himself and his

family to beggary, every thieving tramp upon the highways, every rascal in the penitentiary, every murderer upon the gallows, hastens to plead, 'whisky brought me to this!' because he knows that such a plea will bring him a gush of sloppy sympathy not obtainable by any other means. But whisky makes no man lazy, shiftless, dishonest, false, cowardly, or brutal. These must be original qualities with him. If he has them, he will probably take to whisky—though not inevitably—which then does the community the splendid service of hurrying him along to destruction, and of abridging their infliction upon the public. People who have done much in the way of reforming drunkards have been astonished to find how little real manhood remained after eliminating whisky from the equation. They have supposed the manhood to be only obscured, and have been disheartened to find how frequently it happens to be demonstrated that there was never enough of it to pay for the trouble of 'saving the victim of intemperance.'

ALCOHOL AS A FOOD.

In discussing the food value of alcohol, I am sorry to say that the committee have again followed the lead of Dr. Hargreaves. They do not assert absolutely that all the alcohol that enters the human organism escapes unchanged—goes in alcohol and comes out alcohol—but all of their arguments and authorities tend to that conclusion. Let us notice some of their statements:

"Some of the most reputatble investigators, as for example, Lallemand, Perrin and Duroy, that all of it escapes as alcohol from the system, except perhaps a small portion, which is changed by the juices of the stomach into acetic acid."

"None of the derivatives of alcohol, as aldehyde or acetic acid, have been found by them in the system."

"The weight of evidence goes to show that alcohol is not assimilated even in part, but escapes as alcohol unchanged from the system into which it was received."

In April, 1882, when the committee presented their report, we were expected to accept these statements as amongst the latest and most authoritative deliverances of science in regard to the problem of the decomposition of alcohol in the animal organism. But to have done so would have been to have demonstrated our ignorance of the somewhat abundant literature in relation to the physiological reactions of alcohol, which has been given to the world during the last twenty years. The committee are singularly unfortunate in

selecting as worthy of special commendation as amongst the "most reputable" of those engaged in this research, the French experimenters, Lallemand, Perrin and Duroy; because if any experimenters in this world were ever thoroughly refuted and overwhelmed by counter demonstrations, they were Lallemand, Perrin and Duroy.

In an essay like this, I cannot give even a sketch of the history of the investigations that at various times and in various countries have been made with a view to the clearing up of the difficulties involved in the discussion of the behavior of alcohol within the organism of living animals; but it is necessary to give so much of the experimental evidence as may be necessary to dispose of Messieurs Lallemand, Perrin, and Duroy.

These gentlemen published their investigations in 1860. But already in 1833, Duchek, in Holland, and in 1847, Bouchardat and Sandras, in France, had published researches which rendered it probable that alcohol undergoes in the system digestive transformation, passing successively into aldehyde, acetic acid, oxalic acid, and last of all, carbonic acid and water. And in 1863, M. Baudot subjected the experiments of Lallemand, Perrin and Duroy to a searching criticism, which thoroughly invalidated the conclusions supposed to flow from them.

If, however, anybody was still able to doubt the sufficiency of Baudot's criticism, the question has been set at rest forever by the exhaustive researches of Dr. Anstie, the author of the great work on Stimulants and Narcotics. I will quote the history of these researches from Dr. B. W. Richardson, and from his famous Cantor Lectures at that. I do this because Dr. Richardson is the most redoubtable of all the advocates of total abstinence who have assailed the use of alcoholic beverages with scientific weapons; and because his Cantor Lectures have perhaps been more widely quoted and more confidently relied on by temperance writers than any other scientific work.

Here is what Dr. Richardson says of Dr. Anstie and his reseraches:

Respecting this observer, whose friendship I owned for many years, it is meet for me to pay this public tribute of respect; that no man I ever knew combined with vigor of mind more incomparable industry and courage, or more honorable regard for scientific truth and honesty. The subject we are now considering has lost no investigator more ably learned for the work that still remains to be done.

From Dr. Anstie came the earliest expression of doubt relative to this hypothesis of what is called the direct elimination of alcohol by the secretions, and from him have come the latest objections. His arguments have been sustained abroad by Schulinus, and in this country by Drs. Thudicum and Dupre, whose work on wine will, even in another century, be more highly prized, if that be possible, than it is now. The sum and substance of the labors of these observers is stated in a few words. They prove that while it is true that, under certain circumstances, alcohol taken into the body will pass off in the secretions unchanged, the quantity so eliminated is the merest fraction of what has been injected, and that there must be some other means by which the spirit is disposed of in the organism. In a lecture I delivered on this subject in the year 1869, I ventured to suggest, in commenting on a series of Dr. Thudicum's remarkable researches, that perhaps one element of research was wanting to prove conclusively the fallacy of the direct elimination hypothesis. I thought that sufficient time had not been allowed between the administration of the spirit and the final determination made for it in the excreted fluids. It was not, I argued, shown how much spirit the tissues would hold unchanged. The objection was sound, but it has been removed by more recent experiment.

In the last research conducted by Dr. Anstie, in which he was assisted by Dupre, the results of the experiments were unmistakable in their bearing on the points now under our consideration. The history of these labors is recorded in full in the last paper ever written by Dr. Anstie, and published in the journal called the Practitioner, for July, 1874.

The test that had been commonly employed for determining the presence of alcohol in the fluid suspected of containing it, was the color-test. A solution is made consisting of bichromate of potassa with diluted sulphuric acid. When to this solution alcohol is added there is a change of color from brownish red to green; owing to the reduction of the chromic acid to the green oxyd of the base chromium. By marking the difference of color produced a scale can be adopted, which will show the extent of the reduction, and thereby the amount of the spirit that has caused the change. This process was improved by Dr. Dupre. He distilled the fluid in which the alcohol was believed to be present, and then after treating the distillate with the bichromate and sulphuric acid solution, he tested with a standard solution f soda for the amount of acetic acid that would be produced by the oxydation of alcohol, were that fluid present.

This modification of the test was and is a very considerable advance, since it enabled the observers to extend their determinations with greater accuracy of detail. In the research they conducted with it, two facts of singular interest were elicited. The first fact was discovered by Dr. Dupre. It

is that, from the secretions of persons who do not drink alcohol at all, a fluid can be distilled which affects the chromic test, as if alcohol were actually present in the secreted fluids, and that this hitherto unsuspected product is oxydized into an acid so like acetic acid it cannot be distinguished from it, and is apparently identical with it. To be plain, Dr. Dupre's discovery suggests that no man can be, in strict scientific sense, a non-alcoholic, inasmuch as, 'will he nill he,' he brews in his own economy a 'wee drop.' It is an innocent brew certainly, but it is brewed, and the most ardent abstainer must excuse it. 'Argal, he that is not guilty of his own death shorteneth not his own life.' The fault, if it be one, rests with nature, who, according to our poor estimates, is no more faultless than the rest of her sex.

The second fact, which came chiefly from the labors of Dr. Anstie, is that from animals under alcohol, not one of the secretions, not all of the secretions combined, yield any more than a fractional amount of the alcohol that has been administered. The experiments were, of necessity, made on the inferior animals, but they supplied none the less conclusively the fact stated. It was proved that an animal, a terrier dog weighing ten pounds, could take, with comparative impunity, nearly 2,000 grains of absolute alcohol in ten days, and that on the last day of this regimen he only eliminated by all the channels of elimination 1.13 grains of alcohol. This fact was of itself sufficiently remarkable, but another still more important remains to be told. In completion of his research, when an animal had been treated with alcohol, as above described, Anstie killed it, instantly and painlessly, two hours after it had received the last quantity—ninety-five grains of spirit. Then the whole body, including every fragment of tissue, with all the fluid and solid contents, was subjected to analysis, with the result of discovering only 23.66 grains of spirit.

We are driven by the evidence now before us to the certain conclusion that in the animal body alcohol is decomposed; that is to say, certain portions of it (and if a certain portion, why not the whole?) is transmutable into new compounds."—*Cantor Lectures, English Edition*, 1878, pp. 65-68.

So much for Dr. Richardson, and so much for the fact that alcohol is decomposed within the animal organism. But in the meantime what are we to think of the scientific honesty of Dr. Hargreaves, who having before him not only these "Cantor Lectures" of Dr. Richardson, but also Dr. Anstie's "Final Experiments on the Elimination of Alcohol," has not one word to say about Dr. Anstie's crucial researches; but proceeds coolly to assure us, when he sums up the argument, that "the weight of evidence shows that it enters the system alcohol, and leaves it the same compound?"

Is not this more like the special pleading of a paid attorney, whose business it is to keep everything that tells

against his client hid away out of sight, than it is like the carefully weighed and measured utterances of a scientific thinker whose steadfast aim is to discover the truth, the whole truth, and nothing but the truth? Truly, none are so blind as those who will not see.

THE TESTIMONY OF LIEBIG.

I quote again from the report of the committee:

> It is generally known that Liebig pronounced a verdict more favorable to alcohol than many of his most eminent successors in chemistry. He taught that alcohol does serve as a certain kind of food. Admitting for the present that his claim is well founded, what is the amount of nourishment contained in our popular alcoholic beverages? Here is Liebig's own statement of the matter: "If a man drinks daily eight or ten quarts of the best beer (lager) he will have taken in the course of twelve months as much nutriment as is contained in a five pound loaf of bread." Truly a wondrous food indeed! A man must swallow barrels and barrels of beer to get as much nutriment as is contained in a single square meal. This perhaps explains why some persons drink enough lager daily to burst an ox. They are striving to support themselves on a fluid which has about one grain of nourishment to the gallon.

I am not able, in the absence of any specific reference, to be positively certain about it, but I have some reasons for believing that the quotation from Liebig is not given with strict regard to verbal accuracy. But that is a matter of little consequence since it may be freely admitted that he did make some equivalent statement. Now, to any one ignorant of physiological controversies in regard to the classification of foods, and with regard to the uses which various sorts of foods subserve in the animal economy, such a statement, sustained by the great authority of Liebig, seems to be a tremendous indictment of beverages containing alcohol, or to put it in other words, of the food value of alcohol. But when one knows that Liebig meant by 'nutriment' something that goes to the building up of the vital structures or tissues of the body, and that he held that this is done exclusively through the agency of nitrogenous or albuminous compounds; and still more, when one knows that he classed the starches, the sugars, and the fats, along

with alcohol, as taking no part in histogenesis, but as simply as heat producing foods, as fuels for the evolution of animal heat; when one knows all these things, it is easy to understand that Liebig's words mean something very different from the sense attached to them by the committee.

What Liebig really thought of the physiological value of alcohol may, meanwhile, be gathered from other utterances of his which the advocates of total abstinence seem never to have heard of. Here is what he says:

> As a restorative, a means of refreshment when the powers of life are exhausted, of giving animation and energy where man has to struggle with days of sorrow; as a means of correction and compensation where misproportion occurs in nutrition, wine is surpassed by no product of nature or of art. * * * * In no part of Germany do the apothecaries' establishments bring so low a price as in the rich cities on the Rhine; for there wine is the universal medicine of the healthy as well as the sick. It is considered as milk for the aged.—*Letters on Chemistry*, p. 454.

THE EFFECT OF ALCOHOL ON ANIMAL TEMPERATURE.

The committee quote approvingly Dr. Markham's assertion that alcohol "is not a supporter of combustion."

Does alcohol in fact diminish the temperature of the body? Under certain circumstances it undoubtedly does; but not always. If it could always be relied upon to do this it would be the ideal remedy in the treatment of all febrile diseases, would be the cheapest, the safest, and the pleasantest of antipyretics.

It is important to remember that most of the experiments that have been undertaken to determine the physiological action of alcohol have been made upon the lower animals, such as frogs, and dogs, and rabbits, animals not accustomed to the use of alcohol, and that has almost always been given to these creatures in decidedly narcotic doses. But even under these abnormal circumstances the testimony obtained definitely proves that the larger part of the alcohol is decomposed, that very little of it escapes from the system unchanged, and that reduction of temperature is not always a marked or permanent phenomenon.

In the often quoted experiments of Dr. Parkes and Count Wallowicz, the temperature of the soldier who was the instrument of the research was not reduced, but rather increased.

In 1873 Dr. Frang Reigle made a series of experiments—86 in number—on men, which led him to the following conclusions:

(1) Alcohol, even in moderate doses, in many cases causes a lowering of the temperature of the body amounting to some tenths of a degree.

(2) It is only in exceptional cases that elevation of temperature is noticed, and not unfrequently after small doses no change is observed.

(3) The diminution of temperature in convalescents is less than in healthy subjects, or altogether unnoticeable.

(4) In those who habitually use alcoholic stimulants their depressing influence is wanting.

(5) The frequent repetition of the doses of alcohol diminishes their lowering effects upon the temperature.

(6) The amount of diminution of the temperature is directly proportional to the amount of the alcohol given.

(7) The depression of temperature caused by alcohol is for the most part of short duration, and the temperature soon returns to its previous grade.

EFFECT OF ALCOHOL ON THE GASTRIC JUICE.

After referring to the experiments of Drs. Todd, Bowman, Thompson, and Monroe, the committee proceed to say:

> No proof beyond that furnished by these exhaustive experiments is needed to justify the confident affirmation that alcohol, even when present in so diluted a form as ale or beer, does, by destroying the solvent power of the gastric juice, retard and prevent digestion.

I cannot take time to discuss the experiments which seem so conclusive to the committee; but in very truth they are of very little value. Even outside of the body alcohol does not destroy the digestive energy of the gastric juice unless it is in a much more concentrated solution than is to be

found in ale or beer. Doctor William Roberts, for example, in his work on the "*Digestive Ferments*," which is everywhere recognized as of the highest authority, tells us that the best preservative of pepsin for digestive use is a twenty-five per centum solution of alcohol. Pepsin is an albuminoid, and like other albuminoids is coagulated by strong solutions of alcohol; but that fact does not prove that a weak solution of alcohol will destroy the digestive power of the gastric juice. Heat, too, if you run it up to 212° Fahrenheit's scale, will coagulate albumin, and destroy pepsin; but for all that, a proper degree of heat facilitates digestion, is indeed indispensable to it.

No doubt Dr. Monroe and the rest found that in their experiments in artificial digestion, even a moderate percentage of alcohol introduced into their solutions retarded the process. The fact is a fact, and therefore of some value. But it must not be made to prove too much; and it certainly does not prove half as much as the committee have imagined it does. Very different is the process of digestion in the living human stomach and the process of digestion outside of the human body in the beakers of the physiological experimenter. In the artificial experiment the materials, so much water, so much boiled white of egg, so much pepsin, etc., are all weighed and measured into the glass or porcelain receiver at the beginning of the experiment, and nothing is added, nothing taken away until the experiment is ended; while the peptones and other products of the digestive process accumulate in the experimental fluid. It is the old story—the play of Hamlet with the part of Hamlet left out. In order to have made their experiments complete, these authorities should have manufactured an entire nervous system, as well as a net-work of blood vessels through which the alcohol might impart to that nervous system its stimulus. In short, before we can make an artificial digestive apparatus which will work at all like the natural one, we must know how to construct a living human body. In the case before us, the nervous stimulus is the most essential

factor in the whole process. There is no doubt that when we take a small quantity of alcohol into the stomach the amount of the gastric juice is increased. This results from the stimulant action of alcohol upon the pneumogastric nerves and upon the great "splanchnic or visceral branches of the sympathetic." But this is not all. Immense quantities of watery fluid pour out of the walls of the stomach, diluting the alcohol, and the soluble portions of the food and the peptones, and then with its precious freightage back into the blood vessels; and this afflux and efflux of fluids is continuous, a regular current, while the process of digestion goes on. But without going more minutely into the physiological explanation, I undertake to affirm that under many changes of circumstances and in multitudes of instances, alcoholic beverages are efficient agents for the promotion of digestion, and that this is an induction from facts too numerous and well established to be called in question.

THE PHYSIOLOGICAL ACTION OF ALCOHOL.

Running through several of the statements I have quoted from the committee, is to be found the tacit assumption, that if alcohol is not decomposed in the organism, but excreted from it without change, then it is certainly not a food, neither a colorifacient food, nor a histogenetic food; and still further, that it can then subserve no useful purpose in sustaining or in modifying nervous energy.

Now I have shown that the assumption in question is entirely erroneous, and that as a matter of fact is decomposed in the organism. In the meantime it may be admitted that the successive metamorphoses of alcohol after its injection into the stomach have never been experimentally determined. It is believed, however, that it undergoes a series of oxydations. Oxydation of alcohol outside of the body results in the production of aldehyde, acetic acid, oxalic acid, and finally of carbon dioxide and water; and the inference is hence drawn that inside of the body the oxydation of alcohol is attended by the formation of these same com-

pounds; and as in other oxydations with the concomitant evolution of heat. Taking all this hypothetically for granted, it is easy to see that the thoroughgoing explanation of the physiological action of alcohol is an extremely complicated problem, a problem in the solution of which we should have to account; (1) For the influence of the alcohol as alcohol; (2) For the influence of the aldehyde; (3) For the influence of the acetic acid; (4) For the influence of the oxalic acid; and (5) For the influence of the carbonic acid and water between the time of their formation and the time of their excretion. And if other compouds are formed we should have to account for the influence of each one of these in their order of succession. I make this additional supposition because it is quite conceivable that other compounds might be formed if the decompositions were produced by other processes than oxydation. For example, when alcohol in vapor is passed through a red-hot tube filled with fragments of pumice stone complete decomposition takes place, and among the products are found naphthalin, benzol, marsh gas, ethylene, and hydrogen. I do not mean to suggest that this sort of decomposition is at all probable in the human body; but only to widen our conception of the number and character of the derivatives of alcohol.

What I specially want to insist upon is this: That it would be taking an extremely superficial and inadequate view of the problem to imagine we can make even the most distant approximation towards the estimation of the sum of the influences of alcohol upon the organism by simply measuring results from its combustion. In proportion to the quantity of the alcohol the heat given out by it in the process of combustion is relatively large—that is to say, is large in comparison with the heat given out in the combustion by equal quantities of other colorifacient foods—such as the starches, the sugars, and the fats. In estimating the physiological action of alcohol its power to contribute to the maintenance of the animal heat is, indeed, an important part of the problem, and is not to be neglected. But I think

no one who considers the matter profoundly can escape the conviction that by far the most important results of its action on the animal organism grow out of the influence which it exerts on the nervous tissue by simple contact with it as alcohol, before its decomposition, and perhaps, also, as aldehyde, in the first stage of its descending metamorphosis—an influence which, for want of better name, we may designate as *quasi* catalytic. This catalytic or contact action, as we know, is common enough amongst chemical reactions, and especially amongst the reactions of organic chemistry. The examples are so many and so familiar that I need mention only a few. In the vinous fermentation the Torula cerevisiæ, by its mere presence, converts sugar into alcohol and carbon dioxide. Sulphuric acid, by its mere presence, converts starch and lignin into sugar. A similar transformation of starch into sugar is accomplished in germinating seeds by the diatase derived from their gluten.

For the rest, we must recognize the fact that in the study of this alcohol question the revelations of experimental science can afford us nothing more than incidental help. Our larger inductions must be drawn from the common experience of that large section of the human race which, during so many centuries of time, in so many countries and climates, and under the pressure of so many civilizations, have in all possible ways illustrated the influences on individuals and communities incident to the uses and abuses of alcoholic beverages.

While the popular verdict does not descend much into details, it is clear and emphatic in the general assertion of the unmistakable utility of alcoholic beverages. From time immemorial, the nations that cluster around the Mediterranean sea have favored the use of wine made from grapes; the Germans and the English, at least in modern times, have consumed immense quantities of liquors made from malted grain; the people of Mexico have delighted in pulque, the fermented juice of the American aloe; the Tartars have made themselves glad with koumiss, a beer made

from mare's milk; the Indians of South America have sounded the praises of chica, a fermented liquor made from maize; the inhabitants of the Pacific Islands have sought solace in ava, a drink derived from the *macropiper* methisticum; and scores of other peoples in various parts of the world have invented scores of other alcoholic drinks which have passed into universal use amongst them. It may seem to many that this argument—the argument based on the usages through so many millenniums of so many tribes and nations—is of very little weight. But to me it seems to be of very commanding importance. A good many years ago, when I was a medical student, I made use of this argument in a paper entitled "*A Defense of Tobacco.*" As it is equally applicable, *mutatis mutandis*, to the defense of alcohol, I venture to quote here my summing up:

And now, the sum and substance of my argument is this: That man's natural instincts are always trustworthy, always to be respected, always to be obeyed; that they are given him by the Creator for the express purpose of enabling him to select from the infinite productions of nature what is good for his physical, mental, and moral prosperity; and that their authority is sovereign, and their decision supreme and final. That with reference to tobacco (and, therefore, with reference to alcohol), universal humanity, under the guidance of these sovereign and infallible instincts and appetites, has, with unanimous voice, in a thoroughly practical and unmistakable fashion, decided in its favor; and that this decision is *ex necessitate* of unquestionable propriety. That as the appetite of the infant for its mother's milk is sufficient to demonstrate that milk is beneficial for babies; as the appetite of the laborer is sufficient to vindicate the dietetic value of bacon and cabbage; as the appetite of the tiger for the flesh of animals sufficiently proves that animal flesh is suited to the nourishment of tigers; so the appetites of a thousand millions of human creatures are sufficient to demonstrate that tobacco (and, therefore, alcohol) is a beneficent product of nature, a good thing for the use of intelligent men and women.—*Nashville Med. and Surg. Journal, October*, 1860.

ANOTHER RECTIFICATION.

There is another assumption which is also tacitly made by the committee, as well as by others who have written upon this question, which I do not consider to be altogether legitimate. I mean the assumption that all the constituents of alcoholic beverages other than the alcohol, are of such

insignificant importance that the consideration of them may be neglected in the discussion of the physiological, psychological, and sociological influences of the beverages in question.

For the purpose I have now in mind, it is convenient to divide alcoholic beverages into three classes, namely:

(1) Wines—derived by fermentation from the juice of grapes and other fruits.

(2) Beers—derived by fermentation from malted grains.

(3) Brandies—derived by distillation from crude wines and beers.

In various wines, the per centage of water varies from ninety-five in the weaker to seventy-five in the stronger; while conversely the per centage of alcohol varies from five in the weaker to twenty-five in the stronger. Wine-drinkers, therefore, take their alcohol largely diluted with water; and so greatly does this aqueous solution modify the action of the alcohol on the system, that we might, with but little exaggeration, say that the action of absolute alcohol, compared with that of any of our ordinary wines, is as the consuming heat of a conflagration to the gentle warmth of a summer day.

Wines also contain more or less sensible amounts of grape sugar which has escaped the decomposing action of the fermentation; variable proportions of tartaric acid; minute portions of œnanthic ether; and various volatile perfumes, to which is due their peculiar bouquets. It might seem at first glance that a little grape sugar, and a little tartaric acid, and infinitesimal-quantities of a few volatile ethers, could have but little power to modify the physiological effects of alcoholic solutions. And yet, as a matter of fact, it is well known that wines of similar alcoholic strength, but differing in other respects, do produce widely different effects on the human stomach and within the human organism.

In different kinds of beer, the alcoholic strength varies from one to ten per centum by weight, with correspond-

ing per centages of water. In addition to the alcohol and water, beers contain from four to eight per centum of sugar and gluten, which undoubtedly contribute towards the nutrition of the body. In milk, the model food, the nutritious materials amount to but twelve per centum. Not only do the sugars and albuminoids in the beers contribute directly to the nutrition of the body, but it has also been shown that certain beers which contain unexausted diastase, assist digestion by promoting the metamorphosis of the starch contained in ordinary food.

In the brandies, the quantity of alcohol is about one-half by weight, and a little more than one-half by volume. The brandies also contain traces of volatile ethers and of organic acids. Here I can offer no explanation of the fact, which, however, is a fact that no one will dispute, that some brandies are far more acceptable to the palate and to the stomach, and act much more favorably on the system than others.

Here I close that part of my argument which relates directly to the Report of the Committee, although I might go on and expose the complete or partial fallacy of every separate proposition it contains just as conclusively as I have done in regard to those I have passed under examination.

THE OPINIONS OF MEDICAL MEN IN REGARD TO THE USE OF ALCOHOL.

I proceed now to quote the published opinions in regard to the uses and abuses of alcoholic beverages of various representative men in the medical profession. These testimonies go to show that it is by no means true that the current of medical opinion is in favor of total abstinence. Apropos of this, however, I make two remarks:

(1) Under the pecuniary persuasion of the prizes offered by temperance associations, almost everything that has ever been written that can be in any way made to serve the cause of total abstinence, has been carefully gathered up

and printed in easily accessible books, while no one has thought it worth while, in the absence of similar inducements, to gather up the testimony on the other side of the question.

(2) Medical men are more in the habit of discussing diseases and their remedies, than of elaborating arguments in regard to social and dietetic problems not falling directly within the domain of medical practice. Hence it happens that while every medical treatise on the multiform diseases that flesh is heir to, bristles with testimonies of the value of alcoholic liquors as medicinal agents, the problem of their use as beverages in health, while it has not by any means been neglected, has received much less attention.

This paper has been written very rapidly, and I have had neither the time nor the facilities for making any very extensive research as to the opinions of medical men of past times, and have, therefore, for this and for other reasons, selected my testimonies from recent writers. Amongst the latest contributions to the literature of the alcohol question, and amongst the most authoritative, on account of the distinguished reputation of the writers engaged in it, is the discussion which was published in the *Contemporary Review* in 1878. From this, as will be seen, I have quoted freely.

FROM DR. WM. B. CARPENTER.

(1) There is another class of cases in which we believe that malt liquors constitute a better medicine than could be administered under any other form; those, namely, in which the stomach labors under a permanent deficiency of digestive powers. * * * There are many cases in which no form of medical treatment seems able to develop in the stomach that spontaneous power which it has either completely lost, or which it never possessed, and in which the artificial excitement of an alcoholic stimulus affords the only means of procuring digestion of the amount of food which the system really requires.

(2) After many trials I have come to the practical conclusion that I get on best, while in London, by taking with my dinner a couple of glasses of very light claret, and simply as an aid to the digestion of the food which is required to keep up my mental and bodily powers. But when "on holiday in Scotland, or elsewhere, I do not find the need of this."—*Study and Stimulants*, *p.* 31.

FROM DR. G. W. BALFOUR.

This condition (drunkenness) may be actually produced by a multitude of agents whose use is so widespread throughout the world as inevitably to lead

to the belief that their moderate employment must subserve some important object in the economy of nature. Moreover, the physiological action of all these agents gradually shades into each other, all producing or being capable of producing consecutive paralysis of the various parts of the nervous system, but only in doses of a certain amount,—a dose which varies with the agent, the race, and the individual. Even the cup so often said "to cheer, but not inebriate," can not be regarded as altogether free from the last-named effect. Tea-sots are well known to be affected with palpitation and irregular action of the heart, as well as with more or less sleeplessness, mental irritability, and muscular tremors, which in some culminate in paralysis; while positive intoxication has been known to be the result of the excessive use of strong tea.—*Third Annual Report of the Massachusetts State Board of Health*, p. 129. In short, from tea to haschisch we have, through hops, alcohol, tobacco, and opium, a sort of graduated scale of intoxicants, which stimulate in small doses and narcotize in larger,—the narcotic dose having no stimulating properties whatever, and only appearing to possess them from the fact that the agent can only be gradually taken up by the blood, and the system thus comes primarily under the influence of a stimulant dose. In certain circumstances and with certain agents—as in the production of chloroform narcosis—this precursory stage is capable of being much abbreviated, if not altogether annihilated; while with other agents—as tea—the narcotic stage is not always readily produced. It is well to remember, also, that there is not a shadow of proof that the moderate use of any of these agents as a stimulant has any definite tendency to lead to its abuse; it is otherwise with their employment as narcotics, which, once indulged in, is almost certain to lead to repetition, and to a more or less rapid process of degradation; but there are many exceptions to this latter statement. In regard to this matter, it is interesting to know that opium, which, used in excess, is one of the most deleterious of these stimulants, is employed by 400,000,000, or nearly one-third of the whole human race, and that among these we have the Chinese, who almost to a man are opium smokers, and who, nevertheless, are well known to be one of the most frugal and industrious of people, "powerful, muscular, and athletic, and the lower orders more intelligent and far superior in mental acquirements, to those of corresponding rank in our own country." It is also interesting to know that a late judge, who lived to nearly ninety years of age, believed he had prolonged his life and added greatly to his comfort by the moderate use of ether, which he was led to employ, because neither wine nor tobacco agreed with him; while the immoderate use of the same agent has, particularly of late, and in the north of Ireland, given rise to a most deleterious form of drunkenness. And, however degrading, demoralizing and pauperizing the vice of drunkenness may be, it is important to remember in all our thoughts concerning it, that it is the outcome of a craving innate in human nature, whether civilized or savage, and that there has been no period in the world's history, and no nation on its surface, in which one or the other, and often several simultaneously, of the many natural or artificial nervine stimulants

have not been employed, and well it has been for those who have used them moderately. Two great influences have been regarded as of importance in regulating the prevalence of intemperance—temperature and race. Of these, unquestionably race is by far the most influential. Within the isothermal lines of 77 degrees Fahr., north and south of the equatorial line of 82 degrees four minutes Fahr., the wild native tribes seek their happiness in a quiet introspective self-complacency termed keyf, induced by opium or haschisch. Between the isothermal lines of 77 degrees Fahr. and 50 degrees Fahr., north and south, lie those regions where the grape-vine grows luxuriantly, and in these riotous intemperance, though still comparatively rare, is no longer regarded as the disgraceful social crime it is looked on in the tropics; while beyond the isotherms of 50 degrees Fahr., north and south, the vine is no longer grown, and the stranger beers and distilled spirits become the widespread sources of a deeper intoxication, which too often terminates in crime, a result almost unknown in southern latitudes. How much of this is actually due to the more highly intoxicating qualities of the fluids imbibed, and how much to what Parry would rightly have termed the intoxicating quality of the climate, has never been fairly ascertained; but this much is known, that in these northern climes what is merely a stimulant dose in moderate weather, becomes stupefying under the influence of cold; not because cold increases the intoxicating power of any liquor, but because the previous excitement of the cerebro-spinal system produces a condition of functional exhaustion which makes it more readily succumb to the benumbing influence of cold,—renders it, as we say, more liable to become morbidly congested by the reflex action of cold applied to the surface.

But of the two great influences which regulate the prevalence of intemperance, that of race far exceeds that of temperature. A glance at the map of the world, coupled with some knowledge of its history, teaches us that, whether in temperate, sub-tropical, or tropical regions, wherever the Teuton is, there drunkenness prevails; and the wild orgies in which Tacitus tell us the Teuton of his day indulged in the cold climate of northern Europe, are reproduced with wonderful circumstantiality irrespective of climate or temperature. It may be, as a recent speaker has said, that "a national love for strong drink is a characteristic of the nobler and more energetic populations of the world;" it may be, as he goes on to say, that it "accompanies public and private enterprise, constancy of purpose, liberality of thought, and aptitude for war; it," as he further adds, "exhibits itself prominently in strong and nervous constitutions, and assumes in very many instances the character of a curative of itself." In other words, in certain constitutions the moderate use of stimulants excites to action rather than to a sensual keyf, and the pleasurable stimulus of action renders such individuals less likely to fall into degrading habits of excess.—*Encyclopædia Brittanica, Ninth Edition, Art. Drunkenness.*

FROM DR. CHARLES MURCHISON.

What, then, are the conditions of the animal economy in which alcohol may be of positive use? That there are such conditions I believe cannot be

denied by any one who has honestly studied the subject; but they are not the conditions of perfect health. It is especially when the circulation is weak or sluggish that a daily allowance of alcohol may do real good. Thus—

1. Alcohol is useful in the course of most acute diseases, when the organs of circulation begin to fail, as they are apt to do. A moderate quantity usually suffices. The large quantities—e. g., one or two bottles of brandy in twenty-four hours—still sometimes administered may do harm by inducing congestion of various internal organs.

2. In convalescence from acute diseases, or other weakening ailments, when the circulation remains feeble and the temperature is often subnormal, alcohol is also useful in promoting the circulation and assisting digestion.

3. In persons of advanced life the circulation is also often feeble, and a moderate allowance of alcohol often appears to be beneficial.

4. All other conditions of the system marked by weakness of the muscular wall of the heart, whether permanent or transient, are usually benefitted by alcohol.—*Contemporary Review*, 1878.

FROM DR. JAMES RISDON BENNETT.

The argument in favor of temperance as opposed to abstinence from all alcoholic beverages, based on the universality of their use by mankind in almost all countries and in all ages, which Sir James Paget has so well employed, is, to my mind both valid and very cogent. If, as we are told, the famous Vincentian Rule "*quod semper, ubique, et ab omnibus*," is to be accepted, only "with certain limitations," it may, I think, be taken as at least equally applicable to the temperate use of alcohol as to faith. To the broad statement that the moderate employment of fermented liquors is useful and desirable for most people there are doubtless numerous exceptions to be made. Different climates, different modes of life, and different constitutions will show the necessity for modifying and limiting very greatly any such broad general affirmation. But if our attention be confined, say, to our own country, to the British Isles, the proportion of exceptions to the general rule will be considerably reduced, and if our view be still further restricted to those past middle age who are subjected to the wear and tear of the ceaseless struggle of life in our populous cities, or even in many of our country districts, the exceptions would probably be not more numerous than will serve only to prove the rule. * * * * There are few people, I believe, who are aided in the actual performance of brain-work by alcohol; not that many, nay, most persons are not rendered more ready and brilliant in conversation, or have their imagination quickened for a time. But the steady, continued exercise of the mental powers demanded of professional men is more often impeded than aided at the time by alcohol. When, however, the labor is over, and the hour for food and rest is come, the question arises: Does a moderate amount of alcohol, as a part of the restorative meal, aid or not in repairing the waste that has taken place? Has alcohol any special advantage over other articles of diet in restoring exhausted nervous

power or repairing the waste attendant on its exercise? I believe it has, and that where one man may be met with who finds "a few raisins" answer the purpose, there are more whose experience has told them that "three or four brandied cherries" are better, and the majority of those who have to go through the labors of a parliamentary session or any similar continuous mental strain will, I am convinced, admit that they do their work better and with more comfort to themselves if they take three or four glasses of sherry or claret as a part of their daily food. I agree with those who have maintained that children and young persons do not, as a rule, need alcohol in any form, and believe it to be a grievous error to suppose that every sick or weakly child requires alcohol as a constituent of its diet. Judging from my own experience, both personal and professional, there is need for every one to relax his rule and modify his practice according to the varying circumstances of his life; and to this most men's instincts prompt them. Many a barrister or doctor in his summer holiday feels that he does not need his customary glass of sherry or port, does not care for it, and does not take it; but he no sooner returns to his duties than he becomes conscious that he is happier, more comfortable, and readier for his work by resuming his accustomed habit. I do not believe such a one is *cæteris paribus*, a worse but a better life for an assurance office than a pledged abstainer.—*Contemporary Review*, 1878.

FROM DR. CHARLES BLAND RADCLIFFE.

Alcohol, properly used, is of great service, partly in keeping up the animal heat by supplying easily kindled *fuel* to the respiratory fire, partly in producing nerve power by furnishing easily assimilable *food* to nerve tissue, and partly *in lessening the necessity for ordinary food by diminishing the waste of the system*, which has to be repaired by food. * * * * Moreover, I cannot but find further proof of the wrongheadedness about which I am speaking in the common assumption, not only that drunkenness and the tendency to drunkenness is an almost universal vice, but also that it is wrong to enjoy in moderation anything which may lead to drunkenness. All my own experience in hospital and private practice teaches me that drunkenness, or even a tendency to drunkenness, is the exception and not the rule—the comparatively rare exception even; and, this being the case, I can not but feel a little indignant with those who malign their fellow creatures by maintaining the contrary. I rest upon my own experience; I leave others to deal with theirs. Nor can I consent to let pass unchallenged the other part of the assumption with which I am concerned, that it is wrong to enjoy in moderation what may lead to intoxication when taken immoderately. The normal state of humanity in respect of comfort, so far as my experience goes, is one of *minus* rather than one of *plus*; and, no doubt, it is well that it should be so, for if man were too comfortable here he would for that reason be more disposed to conduct himself as if his life were not a state of discipline for a higher life here and hereafter. Be this as it may, however, there is surely no reason that man should allow himself to be needlessly uncomfortable. On the contrary, it is highly probable that he in whom a

sense of discomfort, *of malaise*, is the one predominating feeling is not in that state of equanimity in which he can do anything well. Such a man—and his case is only too common—will be apt to be absorbed in his own sufferings when he ought to be doing his proper work. Such a man, most assuredly, will need every legitimate means by which he can master the feelings of discomfort which prevent him from working with all his might; and if he should have found that the proper use of alcohol is one of those means, who shall blame him? No doubt there is a danger of making himself too comfortable by making improper use of this particular means; but this is no real ground for blame, for every blessing of life may be made a curse to him who abuses it. Nay, it may be no unimportant part of his discipline here to learn how to practice moderation in the use of alcohol. Besides, it is not at all likely that there is any ground for uneasiness on this score, for in the majority of cases (from common sense alone, or from common sense combined with narrow means, or from finding he must pay heavily in subsequent suffering for any over-indulgence, or for some other reason) the simple fact is that the man is perfectly sober in the true sense of the word. And here, therefore, I may fairly find, in passing, an additional reason in favor of the use of alcohol for dietetic purposes, namely, in this—that alcohol, when properly used is, what it is abundantly proved to be, a natural and very potent means of comfort. Nor should I be disposed to speak differently if I were dealing with those who transgress the bounds of moderation in making use of this means of comfort. For I hold that a very great number of these unhappy persons have erred, not because they have liked too well what they have taken too freely, but because their feelings of habitual discomfort have been intolerable. And for this reason, I should try to reclaim them, not by holding forth on the necessity of total abstinence from intoxicating drinks, but by teaching them to use wisely what after all may almost be a necessity of life to them.

FROM DR. JOSEPH KIDD.

To a person of perfectly sound constitution, in ordinary good health, undoubtedly the rule of life should be, not to take alcoholic fluids habitually—to reserve their use, like medicine, for actual states of disease. In the ordinary wear and tear of civilization, unfortunately, few are the individuals who can be called perfectly healthy.

A large part of the ordinary workers in town have marks upon them of feebleness of some organ or function, causing want of appetite, languor, inability for exertion of mind or body. In many such cases the most generous food, the most careful management of diet, does not avail to arrest the symptoms of declining health, yet a very small dose of wine or beer speedily restores the balance, enables the enfeebled organ to perform its function, and assists the performance of the daily duties.

What is moderation in the use of alcohol to a man of average health from anxiety and weariness of daily life in the city? On no account to use it beyond the first stage of its action—the quickened state of the nervous sys-

tem, the livelier mental expression, the gentle warmth of the extremities. The second stage of the action of alcohol should be avoided—"the falling temperature, the slight failure of muscular direction and power, restlessness and excitability"—above all, even the slightest degree of mental confusion or unconsciousness should be avoided.

In many cases of dyspepsia, the most palpable improvement follows the use of a glass or two of light wine at dinner. With many the simplest food causes a degree of oppression till a mild stimulant sets digestion to work, by the slight flush of blood it excites to the mucous membrane of the stomach. It is the daily experience of many men in the vortex of town life, that every organ and function of the body goes on more naturally when a very moderate amount of wine is taken than when total abstinence is the rule of life.

In the experience of my own life—fragile in constitution—the seventeenth child of a worn out mother, pushed early into hard struggles for life—I lived nearly a total abstainer till thirty years of age. Weakness increasing upon me, languor and unfitness for work, I adopted a new *regime*, of three glasses of good Bordeaux or hock at dinner. As I did so my working power increased, all my delicacy vanished, boils ceased, and for the past twenty-five years, in good health, I have worked as hard as most men, and never changed my regimen, still limiting myself strictly to three large glasses of good wine once a day. I accepted my conditions and have not allowed myself to diverge a hair's breadth as to quantity, taking extra care as to the quality of the wine, which, under any provocation or difficulty, I never touch till dinner.—*Contemporary Review*, 1878.

FROM DR. A. B. GARROD.

I think it most convenient to give the results of my experience of the use of alcohol in the form of propositions:

1. The majority of adults can take a moderate quantity of alcohol in some form or other, not only with impunity, but often with advantage.

2. As a beverage alcohol should be taken in very moderate quantities, freely diluted, and usually at or after meals.

3. Many can abstain from their accustomed alcohol without any unpleasant result, and some with marked advantage; but others, when they have ceased to take it for a little time, experience symptoms indicating that the nutrition of the system is not fully kept up.

4. Alcohol in the different combinations in which it exists in the various fermented liquors, produces different effects upon the system, and discrimination is necessary in the selection of beverages by different individuals.

FROM DR. R. BRUDENELL CARTER.

While I fully admit, therefore, that there are many who can support vigorous life without alcohol, I nevertheless affirm, alike from my own experience and from that of others, that there are some, I do not pretend to say how many, to whom it is a necessity if they are to exert the full measure of

their powers. Those who have lived among total abstainers, and are familiar with their habits, will bear me out in the assertion that they are generally large eaters, with an especial craving for food which contains a considerable quantity of sugar. I am much inclined to think that sugar, a substance of very similar composition, may fulfill the same office in the organism as alcohol; and that the need for alcohol may vary inversely as the power of assimilating sugar, which in many persons undergoes acid transformation and becomes a source of discomfort. If it is necessary to advance any hypothesis on the subject, the weight of probability seems to me to rest with the belief that alcohol, within certain limits of quantity, undergoes such decomposition as to liberate force which may be applied to the maitenance of vital processes, and that it is also a source of stability by diminishing the waste or disentegration of tissue. I incline to the belief that it not only supplies force itself, but that it also retains within the body other materials which may render the same service.

As regards the action of alcohol in disease, I believe there is an entire agreement among all medical men whose declarations of opinion are entitled to respect, that there are conditions in which it is a valuable remedy. Dr. Richardson, for example, whose earnest advocacy of abstinence is so well known, does not hesitate to prescribe alcohol as a medicine; and I presume that the chief difference of view with regard to it would have reference to the frequency of the conditions in which it is required, or to the relative place that should be assigned to it in a certain class of medicinal agents. But it is interesting to note that nearly every practitioner finds it to be of especial value in that particular department of the healing art in which he himself has the largest and most constant experience. The physician describes its efficacy in certain forms of internal inflammation and fever; the surgeon describes its efficacy in conditions consequent upon injury. Perhaps the most remarkable testimony ever borne to its usefulness is that of a distinguished ophthalmic surgeon, Dr. Gustav Braun, of Moscow, (*Archiv fur Ophthalmologie, Bd. xi. Abth.* 1, *S.* 200), who, a few years ago, was accustomed to lose no less than forty-five per cent. of the eyes upon which he operated for cataract in his hospital—that is to say, among badly nourished Russian peasants. He was not singular in this experience, for his colleague, Dr. Rosander, was equally unfortunate. At length, after trying many expedients, including the use of quinine and other tonic remedies, Dr. Braun administered a dose of brandy or of sherry to every patient immediately after operation, and repeated it twice a day for two or three days. The result of this plan was, after a year's trial, to reduce the number of cases in which the eye was totally lost, from forty-five to six per cent., with an additional three per cent. of imperfect recoveries. Nothing was altered in the mode of operating, or in the other treatment; and Dr. Braun asserts that the improvement was attributable to the alcohol alone. Within the last few weeks I have myself had occasion to give brandy, disguised as medicine, to a gentleman far advanced in age, who had been nearly all his life a total abstainer, and in whom the dose certainly saved both his eyes from perishing after an operation. It may be that other agents would produce the same

effects as alcohol; but, as a matter of fact, even those who have theoretical knowledge of these agents are seldom sufficiently versed in their employment to feel safe in discarding the old familiar friend. When the integrity of an important function, or even life itself is at stake, no conscientious physician or surgeon will venture upon coquetting with new remedies, so long as he has at hand those tried ones with which his experience has been gained. To use the homely illustration of President Lincoln, it is bad to change horses while crossing a stream; and the feeling which induced David to prefer his sling to the weapons with which Saul furnished him is likely, I think, to prevail among all who are acquainted with the value of alcohol, and who have realized the meaning of responsibility.

It will be seen that I have endeavored throughout this paper to place the question upon purely empirical grounds, and in truth I do not recognize the existence of any others. It is conceivable that we may some day understand the digestive and assimilative process completely, and may be able to trace out the course and action of food and drink in the economy. At present, we are not even at the threshold of such knowledge, and there is no reason to believe that the hypotheses that are in vogue to-day will have any longer existence than those which have preceded them. A few years ago we were told by chemists that all the solid framework of our bodies was in a state of continual destruction and renewal, and that the destination of nitrogenous food was to supply materials for the never-ending repair. We are now tolerably sure that the tissues do not waste and change to the extent that was once believed, and that food is required to supply force rather than material; but, although it is again to have discarded a false hypothesis, it does not follow that we are any nearer to the possession of a true one. We may assume ourselves by common observation that the moderate consumption of alcohol is useful to many persons, and that it does not produce, at least necessarily, or in any but exceptional cases, the dire effects which have been ascribed to it. These two positions, as the teachings of experience, appear to me to be as unassailable as the familiar knowledge which we have of alcoholic excess as one of the chief causes of misery and disease among men; but the argument for discarding the use of anything for fear of the consequences of its abuse is one to which the majority of mankind will turn a deaf ear as long as human nature retains any semblance of its present characteristics. The claims of chemistry and physiology in the actual state of those branches of inquiry, to regulate our habits in conformity and with their fleeting hypotheses, are as ludicrous as anything that Swift imagined in the University of Laputa; and it is high time that the intelligence of mankind should assert itself in opposition to the pretensions of sham science. The tendency of the day is to exalt what is technically called "research," as opposed to ratiocination; and one consequence of this tendency is, that a number of otherwise unemployed and unappreciated persons set themselves to work with microscopes and test tubes, and fancy that they are making discoveries. The laborious trifling of six months is there described as a "research;" and the conclusions of the great unknown who makes it are regarded as part of the general stock of knowledge

for the six months longer, which may possibly elapse before these conclusions are overthrown by somebody else. The ordinary sequence of events is, that the iconoclast sets up his idol in its turn, which in like manner is dragged through the dirt by his successor; and the common people, who are not scientific, are expected to worship at each shrine as long as it endures. For much of all this we are indebted, of course, to the impatience of slow processes which is characteristic of the age, and to the modern facilities for gaining notoriety; but, before we can hope to regulate our diet on any broader basis than experience, we must witness a return of the scientific community to the patient industry and the habitual caution of an earlier generation; and we must see these habits guided, when the time comes, by the powers of insight and of generalization which are given, once in a century, to a philosopher who stamps the mark of his genius upon the epoch in which he lives.

FROM DR. ALBERT J. BERNAYS.

Temperance, as against total abstinence, is well worthy of attention at the present time, as legislation in certain directions may be considered an almost foregone conclusion. * * * * One of the favorite arguments against alcohol is, that it is not food. Surely a completely burnt body like water cannot be called food. When a liquid is required to quench thirst, the less of food it contains the better, and that is one reason why water is of all bodies the best adapted to the purpose. * * * It is upon this matter of experience that the support of moderate alcoholism should be based. The experience of mankind is better than individual experience, and so, for every medical man of distinction who is in favor of total abstinence, I would find twenty who would be against it. And if a man is observant of himself and is temperate in all things, he is a better judge of what agrees with him, under ordinary circumstances, than any physician can be.

With the use of wine a more moderate allowance of food should suffice; if it do not, then the wine is in excess. About this fact there can be no doubt; moderate drinking and moderate eating should go together. A temperate man is temperate in all things. If he were in perfect health his appetite would never require subsidizing, and he would reject even wine as dulling his sensations. But the demands of a town life on the nervous system, in the mere struggle for existence, are sufficient reasons for recommending the moderate use of wine.

At the present day it is a common thing to meet a friend in very bad health, and you ask him the cause. Often it is owing to some experiment in tetotalism. Such experiments are very injurious, and should not be attempted by people who have passed their fortieth year. I am not speaking of the intemperate; for such, even if death ensues, there is nothing for it but total abstinence. But when we are told it is better to die than to take an alcoholic drink, and that people should disobey their medical advisers rather than be persuaded to take wine or brandy, then I think it is time that we should protest.—See *Contemporary Review*, 1878.

FROM SIR JAMES PAGET.

It may be assumed that there is no need now to write such arguments against intemperance as would be required if it were defended by any reasonable, sober person. All reasonable people hold it to be a hideous evil, and few know more of its mischiefs than do surgeons, who see its baneful influence in multiplying the injuries due to accident and violence, and hugely increasing the danger and mortality of operations and of injuries such as sober people bear with impunity.

The arguments against intemperance are complete and unanswerable, and in favor or defense of it there are none. But the necessity of total abstinence from alcoholic drinks is now, as for a great national advantage, urged on those who are habitually moderate with nearly as much vehemence as on the habitual drunkards. It is said by some that there is not any habitual use of alcoholic drinks which is not imprudent, even if it may not be called intemperate, and that even in small quantities they are always and to all healthy persons injurious, slowly, it may be, but surely. And some, who see in them no direct harm, yet maintain that they are useless and unnecessary, and ought to be disused, so that, by overwhelming examples and custom of total abstinence, the crime and folly of intemperance may be put down. Statements such as these are confidently made; but if we look for evidence there seems to be very little in favor of them, and there is more that inclines the other way. The whole of the evidence, indeed, which has as yet been collected for a comparison of the respective influences of temperance and abstinence on nations, or on large bodies of men, may seem not sufficient for a complete final decision. The subject is a very large one and very complicated; and, though the central question may seem narrow, it is involved in so many more that the final general answer must be subject to exceptions for particular cases, only to be settled by many future and very careful researches. Still, on the whole, and on the question of national health and strength, I cannot doubt, with such evidence as we have, that the habitual moderate use of alcoholic drinks is generally beneficial, and that in the question raised between temperance and abstinence the verdict should be in favor of temperance. The evidence of the evils of intemperance is abundant, clear, and complete. If any one accustomed to weigh facts will compare with it what is given as the evidence of the evils of a moderate use of alcohol, this must appear as, at the best, quite insignificant. Against intemperance we have the vast experience of life assurance offices, the records of large hospitals, the unanimous opinion of all practitioners of medicine, the results of all physiological studies, the belief of all reasonable persons. Against moderation we have none of these.

So far as I know no large insurance office or general hospital has yet begun to collect facts for statistics bearing on the respective influences of moderation and of abstinence. The least that could be used with any chance of getting at the truth would be a careful comparison of five hundred total abstainers who have never been intemperate, and were not born of intemperate parents, with five hundred habitually moderate persons similarly

born and bred, pursuing similar callings, and living under generally similar conditions; and this comparison should have regard not only to the average length of life and to health at different periods of life, but to the quantity of muscular work and of good mental work done by each group. With less evidence than such comparison as this might supply, I can not suppose that any statistics can be worth using in the question between moderation and abstinence. The reports of the health of prisoners, and of the quantity of work done by them, while both total abstinence and work are compulsory, can not safely be used. Two sets of conditions can hardly be more unlike than those in a prison and those out of it. In the prison every arrangement is made for the maintenance of health and of fitness for work; every arrangement must be submitted to as absolutely as total abstinence; every prisoner's day's work must be done. But we cannot so much as guess what would be the health and what the power and kind of work of the same prisoners if, when free, they could do as they please in everything but total abstinence. And what is true of prisoners is, in this view, equally true of the inmates of workhouses.

Thus we have no statistics, and are not within reach of any, for deciding the question between moderation and abstinence.

As for the opinions of the medical profession, they are, by a vast majority, in favor of moderation. It may be admitted that, of late years, the number of cases has increased in which habitual abstinence from alcoholic drinks has been deemed even better than habitual moderation. But, excluding those of children and young persons, the number of these cases is still very small, and few of them have been observed through a long course of years, so as to test the probable influence of a life-long habitual abstinence. Whatever weight, then, may be assigned to the balance of opinions among medical men, it must certainly be given in favor of moderation, not abstinence.

Then, we have some deductions from physiological observations, which are supposed to indicate a mischief in even habitual moderation. But some of these are really such that if in the place of "alcohol" we were to read "common salt," we should be led to conclude, if it were not for experience to the contrary, that we are destroying ourselves by the daily excessive use of a material which, in its excess, can alter the constitution of the blood, or the permeability or other properties of our tissues. And even the best of the physiological observations on alcohol do not touch the question between abstinence and moderation more nearly than as suggesting some of the directions which further inquiries should take. Medical science has always been full of facts derived from physiology—facts which seemed certainly good guides to practice, safe signals of what must be true for training in health, or for remedy of disease. Some of these have so proved themselves, and have led to some of the best knowledge we possess; but many more have proved fallacious; and I suppose that all who are actively engaged in practice are sure that experience alone can be trusted for deciding the practical value of a deduction from physiology. Till we have this experience, large and clear, we must not regard the facts of physiology concern-

ing alcohol as more than reasonable suggestions, facts, or opinions, to be received with all respect, but to be practically tested before they can be regarded as practically useful, or as decisive of the question now discussed.

The beliefs of reasonable people are, doubtless, by a large majority, favorable to moderation rather than abstinence, and this should not be regarded as of any weight in the discussion. For, although the subject be one in which few, even among reasonable people, have made any careful observations, and few still have thought with any care, yet this readiness to fall in with custom, a custom maintained in the midst of a constant love of change, and outliving all that mere fashion has sustained—all this is enough to prove that the evidence of the custom being a bad one is not clear.

Thus, then, from all the witnesses to the evils of intemperance, we fail to get any clear evidence that there is mischief in moderation. Looking further, we find in them certain indications that it is, on the whole, generally beneficial. The long-abiding custom of which I just now spoke makes this very probable. The use of alcohol, and, speaking generally, its habitual moderate use, has been for many centuries the custom of a large majority of civilized nations. We may safely say that there is a natural disposition among adult men to drink; a natural taste for alcoholic drinks, whether for their cheering influence, or for any other reason. In the absence of any clear evidence to the contrary, there must be a presumption that such a natural taste has its purpose rather for good than for evil. In a general view of the natural tastes of all creatures for foods and drinks, we see that tastes are guides to good, and not to evil. There may be an exception in our own case in relation to alcoholic drinks; there may be a universal fallacy in the minds of even reasonable, virtuous, and self-denying people, who have believed that in the moderate use of wine or beer they gratified a natural and useful desire; but the evidence of such a mistake ought to be very clear.

For when it is said that the taste for these drinks is not natural, but artificial or acquired, there is an error as to what in this case "natural" should mean. Our natural state is that in which we now live; the present state is to each race of men, if not to every one man, the natural state; the state attained in the natural course of development. In this state, men are disposed to drink alcoholic liquids, and the presumption must be that these drinks are beneficially adjusted to some of the conditions of our life which have been attained in our development from some less civilized or completely savage state. Considering how largely our nature has been changed from that state by the gradual developments of society, and by the various habits, disposition, and capacities therewith associated, it is in the highest degree probable that, with these changes, we should have beneficial adjustments of different foods, or other means of sustaining us in our work. Among these, we may reckon the greater part of the comforts and of what now seem to be the necessities of our civilized, that is, our natural state, such as wheaten bread, potatoes, cultivated fruits, and well-fed meats; and, similarly, among them we may reckon, unless there be clear reason to the

contrary, such things as tea, coffee, and alcoholic drinks, and, I even venture to think, tobacco, though probably only for much smaller groups of men. Doubtless all these things are used by some persons in a mischievous excess; but so may be bread and cheese; and many persons, complying with custom or fashion, may use them to whom, even in moderation, they are useless or mischievous; but the fact of general or nearly universal custom is, in a matter of this kind, very weighty; it gives a strong presumption in favor of the belief that these are beneficially adjusted to natural necessities. And the presumption is equally strong, whether we regard the matter from the view of natural theology, and think of these things as providential insertions in a divinely guided course of Nature, or from the view of natural history, where they may appear as instances in which the gradually developing human mind discerned, though it may have been almost unconsciously, the fittest things for its maintenance and progress. All our foods have thus been provided or chosen; they have suited men's tastes, and, therefore, have been desired and used, without any clear knowledge of their utility and fitness. Science has ascertained the reasons for their fitness; in the same course it may, in time, make us more sure of the fitness of the moderate use of alcohol.

The presumption in favor of moderation being generally better than abstinence, is strengthened by a comparison very broadly made between those of our race who do not and those who do habitually use alcoholic drinks. In this view, we may broadly compare the Eastern with the Western races, adding to these the North Americans, Canadians, and Australians. We may again take, as fair tests of the comparative influences of moderation and abstinence, the average length of life, average health, the quantity of muscular work, and the quantity of mental work. For the first two we have, I think, no evidence that can be relied on; but, at least, there is no reason to suppose that the Easterns live longer or are healthier than the Westerns and their descendants. But as to working power, whether bodily or mental, there can be no question that the advantage is on the side of those who use alcoholic drinks. And it is advantage of this kind which is most to be desired. Longevity is not the only or the best test of the value of the things on which we live. It may be only a long old age, or a long course of years of idleness or dullness, useless alike to the individual and the race. That which is most to be desired is a national power and will for good working and good thinking, and a long duration of the period of life fittest for these; and the facts show that these are more nearly attained by the peoples that drink alcohol than by those who do not. It may not be positively asserted that alcohol does this good; it may be due to many other things; but in trying to account for it, the influence of alcohol must not be excluded or counted on as evil.

We find a similar result in a comparison of the races of Europe, among whom different proportions of alcoholic drinks are habitually consumed. Comparing North with South, we certainly compare those who drink more with those who drink less; and the advantage is with those who drink more, especially when we compare them in respect of general activity and

force of mind and body, in readiness and fitness for work, in enterprise, invention, production, and all the signs of the best mental activity and strength. Doubtless, in all these cases, the result may depend more on other conditions than on the use of alcohol; possibly it may be even in spite of alcohol; but this is neither proved nor probable, and we have no right to imagine it.

It is to be observed that, in all these comparisons, the case in favor of moderation is burthened by the inclusion of the intemperate among the moderate. If the shortened lives and damaged healths, the idleness and bad work, of the drunkards, and all the miseries entailed upon their children could be excluded from the reckoning, the evidence in favor of alcohol would be very greatly strengthened, and the reasons for preferring moderation to abstinence might seem conclusive.

We are bound further to consider the great length of time during which the nations compared have followed their different habits in regard to drinking. Let us count it—for the sake of a round number—at a thousand years, a time much below the truth. Knowing as we do the mischiefs that are transmitted through inheritance from the intemperate, it is hardly conceivable that if moderation were in any degree mischievous, its evils should not by this time have become very evident. The accumulated evils of thirty generations of men given to moderate drinking should now be notable; they should have risen to the level of the manifest evils of one or two generations of excess, or, if they were not positively distinct, they should have appeared in a comparison of the heirs of these drinking generations with the heirs of thirty generations of abstainers. But the result is the reverse of this. West against East, North against South, the heirs of the moderate drinkers are better men in force of body and mind than the heirs of the abstainers; I say of moderate drinkers. Some would say that before our time there have been centuries of habitual vile intemperance, and that our ancestors, for as long as we have records of them, drank hideously hard. I do not believe this. We have tales of the intemperance as of all the other extravagances of former times, and, as usual, the more customary moderation is not recorded, being not remarkable. But the worse that is said of our ancestors, the less does any probability of harm, and the greater does the probability of good, from alcohol appear.

It may be worth pointing out how great would be the force of any hereditary evil accumulated in succession for many generations. Blackstone says: "It is, at first view, astonishing to consider the number of lineal ancestors which every man hath within no very great number of degrees; and so many different bloods is a man said to contain in his veins as he hath lineal ancestors. Of these, he hath two in the first ascending degree, his own parents; he hath four in the second, the parents of his father and the parents of his mother; he hath eight in the third, the parents of his two grand fathers and two grand mothers; and by the same rule of progression, he hath an hundred and twenty-eight in the seventh, a thousand and twenty-four in the tenth, and at the twentieth degree, or the distance of twenty generations, every man hath above a million of ancestors, as common arithmetic will demonstrate."

This calculation is not quite accurate, for it neglects the cases of marriages of cousins and of other blood relations. A person who is the offspring of cousins may count only six great-grand parents; but allowing for these, and all such cases, we may safely estimate that at "the distance of twenty generations every man hath" many more than half a million of ancestors; and the estimate of "above a million," though inaccurate for the number of ancestors, is necessarily accurate for the number of times of transmission of hereditary properties, and of the converging lines along which, in twenty generations, they must meet on every one born in the twenty-first. Let us then suppose that the moderate use of alcoholic drinks is, in even a very small degree, mischievous, and that the evil due to it is in some degree transmissible, as are those of intemperance, by inheritance, what should be the condition of every one of us, seeing that on each of us some measure of evil must have come along each of more than a million of lives with constantly accumulating and convergent force? It may be said that there were, probably, many total abstainers among the half million or more of ancestors, but, as probably, there were many drunkards; and these two groups, each of which we may be nearly sure were a small minority of the whole number, may balance one another, and leave us free to think of the influence of several hundreds of thousands of transmissions of whatever evils can be transmitted from the effects of habitual moderation. I think it would be difficult to find a healthy family born of three successive generations of drunkards, or of persons all suffering from the same heritable disease. If, then, healthly families are born after thirty generations of habitual drinkers of alcohol, how can we fairly charge its moderate use with doing mischief? Is it not fair to think it probable that it has rather been beneficial, and one among the conditions to which we owe the still gradually increasing healthiness and working power of our race? At least, it must seem clear that the effects of excess, and those of moderation, in the use of alcoholic drinks are so incomparably different in degree, that they may be reckoned as different in kind; and that though the one is always injurious, the other may be always harmless, and often or usually beneficial.

It is, perhaps, due to the want of a sufficient appreciation of the different effects of the same substance, or the same force, applied in different quantities to the living body, that a moderate use of alcoholic drinks appears to some persons to be necessarily mischievous. If a large quantity does great harm, a smaller quantity, it is thought, must do some harm, however much less it may be. But the facts are the other way. Large quantities of quinine will make a man, at least for a time, deaf and blind; smaller quantities may do nothing of the kind, but may cure his ague; and yet smaller may leave him with his ague and all his senses unaffected, but may improve his appetite. One quantity of arsenic may kill any man, another much smaller may strengthen him, or cure his neuralgia, or some disease of his skin. Or a Styrian may (perhaps) be all the better for taking in a year as much arsenic as if he took it in a day, would be fatal to him. And the same thing is to be seen in other conditions, though less plainly than in the use of poisons and medicines. The best way to make the muscles large and

strong is by moderate exercise gradually increased; by the same exercises in excess they may be weakened and brought to waste ; the nerves of sight and hearing may be improved by moderate and graduated exercises, and ruined by similar exercises; our cuticles may be made to grow thick and strong by duly adjusted friction, and may be applied or detached by similar friction not duly adjusted. And the rule is very general; the same influences which in one degree are destructive are, in a less degree, beneficial. It would only be consistent with this rule that alcohol should be, in large quantities, injurious, in small quantities, useful.

I have dealt with the question between temperance and abstinence entirely from the side from which my profession has enabled me to study it, so far as may justify my giving an opinion on it. My study makes me as sure as I would ever venture to be on any such question, that there is not yet any evidence nearly sufficient to make it probable that a moderate habitual use of alcoholic drinks is generally, or even to many persons, injurious; and that there are sufficient reasons for believing that such an habitual use is, on the whole and generally, beneficial. It may be assumed that further study of the matter by competent and calmly-minded scientific persons, will discover many facts concerning the use of alcohol which will lead to the remedy of such harm as, even in moderation, it may do to some persons, or to some whole races of men, and to its use being better directed and limited than in our present customs. But knowledge of this kind will not change the general conclusion in favor of the general utility of a moderate use of alcoholic drinks; and till this knowledge is gained every one may assume that he may safely use them in such moderation as he does not find to be injurious.

But, as I have said, there are many who, even if they would admit this, would yet maintain that the mischiefs of intemperance are so much greater than any conceivable advantages of moderation, that we ought not to promote or defend moderation, because its promotion hinders the general adoption of total abstinence, which, they say, is the necessary and only sure remedy for intemperance. Here, I can only doubt. I should think that in this, as in many other things lawful yet tempting to excess, the discipline of moderation is better than the discipline of abstinence. But it is certain that we have no facts at all by which to estimate whether the whole benefits of moderation, or the whole possible benefits or evils of total abstinence, or the whole sure evils of imtemperance, would be the greater; we have nothing from which we may make even a fair guess, or which would justify a great experiment. Without such knowledge it seems unreasonable to urge the discontinuance of a custom which is certainly pleasant and probably useful; and very unreasonable to require temperate persons, who are an immense majority of the population, to cease to do that which is lawful, useful and agreeable, in order that an intemperate minority may be induced to cease to do that which is unlawful and mischievous. It would be not less unreasonable to urge that honest people should cease to gain money because there are some misers, thieves, and swindlers.

But some will say: "What is moderation? How may we define it?"

Let those who thus ask try to define, to the satisfaction of any ten persons, what, under all circumstances and to all people, is moderation in bread or the wearing of jewels, in hunting or the language of controversy.—See *Contemporary Review*, 1878.

FROM JAMES F. JOHNSTON, ESQ.

In the ardor of this crusade against fermented liquors, statements have been hastily made by over-zealous champions of total abstinence, which are not quite borne out by chemical and physiological researches.

Ardent spirits of every variety are little else than alcohol diluted with a large proportion of water, and flavored with a minute admixture of volatile oil, the precise action of which upon the system is not known. They contain none, therefore, of the common forms of nutritive matter which exist in our usual varieties of animal and vegetable food. It does not follow from this, however, as some have too broadly alleged, that they are incapable of serving any good purpose in the animal economy. On the contrary, it is ascertained of ardent spirits:

First. That they directly warm the body, and, by the changes they undergo in the blood, supply a portion of that carbonic acid and watery vapor which, as a necessity of life, are constantly being given off by the lungs. They so far, therefore, supply the place of food—of the fat and starch for example—which we usually eat. Hence a Schnappes in Germany, with a slice of lean, dried meat, make a mixture like that of the starch and gluten in our bread, which is capable of feeding the body. So we either add sugar to milk, or take spirits along with (old man's milk) for the purpose of adjusting the proportions of the ingredients more suitably to the constitution, or to the circumstances in which it is to be consumed.

Second. That they diminish the absolute amount of matter usually given off by the lungs and the kidneys. Thus they lessen, as tea and coffee do, the natural waste of the fat and tissues, and they necessarily diminish, in an equal degree, the quantity of ordinary food which is necessary to keep up the weight of the body. In other words, they have the property of making a given weight of food go further in sustaining the strength and bulk of the body. And in addition to the saving of material thus effected, they ease and lighten the labor of the digestive organs, which, when the stomach is weak, is often a most valuable result.

Hence, fermented liquors, if otherwise suitable to the constitution, exercise a beneficial influence on old people, and other weakly persons whose fat and tissues have begun to waste—in whom the process of digestion, that is, does not replace the tissues as fast as they naturally waste. This lessening in weight or substance is one of the most usual consequences of the approach of old age. It is a common symptom of the decline of life. The stomach either does not receive or does not digest food enough to replace that which is daily removed from the substance of the body. Weak alcoholic drinks arrest or retard and thus diminish the daily amount of this loss of substance. They gently stimulate the digestive organs also, and

help them to do their work more fully and faithfully; and thus the body is sustained to a later period in life. Hence, poets have called wine the "milk of the old," and scientific philosophy owns the propriety of the term. If it does not nourish the old so directly as milk nourishes the young, yet it certainly does aid in supporting and filling up their failing frames.—*The Chemistry of Common Life*, Vol. I, pp. 287-9, *American edition.*

FROM DR. ORPHEUS EVERTS.

Enthusiastic reformers, clamoring for a prohibitory law, claim that such a law is in the interest of all—that no man, woman or child is benefitted by the use of brain stimulants, but that all are injured, indirectly if not directly, by their use, however abstemious they may be as individuals.

This claim, there is reason to believe, is not well founded in facts or in philosophy. It is based upon appearances, exaggerated by the personal sympathies, discomforts, or ambitions of those who prefer it.

In the face of all these facts and fancies, it may be confidently affirmed that the use of brain stimulants, including alcoholic drinks, has not been, and is not now, an unmitigated evil; but, on the contrary, of incalculable benefit to mankind.

This affirmation has not been made without investigation and deliberate thought. The terrible array of adverse testimony has been carefully considered. Alms houses, insane asylums, criminal courts, county jails, State prisons, dens of iniquity, homes of squalor, have all been visited, time and again, and are not now forgotten. No man has seen more clearly, felt more deeply, or comprehended more fully, the significance of these things than has the author. He knows as well as any man can know the demoralizing and degrading effects of drunkenness. He knows, also, how intimately human wretchedness, poverty and crime are associated with intoxicants. He knows, too, how burdensome has become the public support of the pauper and criminal classes, chargeable supposedly to a great extent, to alcoholic drink. He admits that the evil is apparently great, and the testimony condemning it eloquent and convincing. He admits, even, that it would be overwhelming, were he not to close his eyes to superficial appearances, and turn a judicial ear to a recitation of the facts and arguments of an opposing character—facts and arguments which require impartiality of consideration, and may only be convincing to such minds as are capable of estimating facts and inferences at their true value; and of drawing conclusions without fear that truth so discovered, however unexpected its appearance, will or can be dangerous or disagreeable. * * *

That our ancestors, as far back as we can go in pursuit of information, regarded the use of brain stimulants, on the whole, as good, may be known from the fact that they regarded wine and beer as fit nourishment for their gods; and offered them in libations, propitiatory of divine beings, to appease their anger or secure their favor; and that they used them in some form at all times and in all lands wherever they found an abiding place themselves; and testified of their salutary effects as refreshing, strengthening, comforting, and making glad, from generation to generation; not-

withstanding their knowledge of the evils consequent upon such use. * * That such appetencies have indicated the necessities of the system—especially such hunger of the brain for stimulating food,—met by nature and his own endowments,—and have contributed essentially to the distinguishment of mankind by their influence or growth, through no matter how long a period, centuries or ages, there can be no reasonable doubt.

These inferences find confirmation in the fact that, while all the races of mankind manifest the same brain appetite, and indulge it with such materials as are within their reach, the largest brained, and consequently the most highly intellectual and civilized races now living consume greater quantities and varieties of brain stimulants, especially alcoholic drinks, than do contemporary semi-civilized or barbarian peoples; and in the further fact that a greater disparity of excess characterized the ancestors of such brainy races as far back as we have any knowledge of them. * *

Is it not, indeed, probable that were all brain stimulants, other than ordinary foods common to man and other animals, at once and forever annihilated, or the alcoholic varieties alone withheld forever from common use, that the result would be, in the course of time, deleterious to mankind, by reason of brain deterioration resulting from the loss of such food, and a consequent gradual, no matter how slow, return of the races to a more common level, at the expense of those who have accomplished the greatest departure upward therefrom? It is more than probable. See, What Shall We Do for the Drunkard? Chapter III.

THE PREVENTION OF DRUNKENNESS.

The individual and social evils growing out of the excessive use of alcoholic beverages are many and great. About this there can be no question. Nevertheless, great as these evils may be, both in number and in magnitude, I must be allowed to give expression to my own deliberate conviction, that they have been greatly exaggerated by the intemperate advocates of temperance, who, indeed, seem tacitly to assume that when men are virtuous there will be no more cakes and ale. Be this, however, as it may, I very cheerfully admit that these evils are of quite sufficient importance to warrant very grave consideration on the part of all civilized communities—quite sufficient, indeed, to demand legislative interference for their suppression, to the extent to which suppression of them may be found possible. The only question of practical importance in regard to this matter is to determine in what way and to what extent the State may be able to interfere for the regulation of the

traffic in alcoholic liquors without transcending the boundaries of wise and prudent legislation. There are two methods, and only two, by which the prevention of drunkenness can be accomplished. One of these methods is to place all alcoholic beverages beyond the reach of those who would use them to excess; and the other is to place all persons who are disposed to alcoholic excess under such restraint as will prevent them from indulging their intemperate inclinations. In plainer language, either the drink must be kept away from the drunkards, or else the drunkards must be kept away from the drink. Either device, if thoroughly enforced, would accomplish the desired result; I say if thoroughly enforced, and this qualification is a most important one; because every practical statesman will recognize at once, and without the aid of elaborate argument, that the thorough enforcement of either method, at least in our American communities, is absolutely impossible.

The first method is that which is so urgently recommended for adoption by the advocates of prohibitory laws. But simply to declare prohibition is a very different matter from an effectual accomplishment of it. It would require a standing army of officials to enforce a law sufficiently comprehensive and minute to accomplish the end in view. Even without prohibition, the temptation to the illicit manufacture and smuggling of alcoholic stimulants is so great that neither the United States, nor Great Britain, nor any other civilized nation, has ever been able to prevent. With prohibition this temptation would be increased a hundredfold, and at the same time the difficulty of preventing it would be increased by even a larger ratio. The natural resentment of our people is easily excited by any invasion of their natural rights, especially such as pertain to what they shall eat, or drink, or wear, or what religious creed they shall confess. The class of drunkards, for whose benefit such laws are ostensibly projected, is but a small fraction of society compared with the multitude who are either not directly to be benefitted by prohibition, or who

would be in some sense injured by it. To leave the women and children out of the problem, perhaps one man in every twenty indulges in some measure of bibulous excess; and common sense is shocked by the proposition that nineteen-twentieths of our adult male population shall not be allowed to drink brandies, wines and beers at all, because the remaining one-twentieth drink more than is good for them. Indeed, if we consider it well, such a proposition is nothing less than monstrous.

It is not upon any such principle that legal remedies for the suppression of crimes are ordinarily based. Who would think of abolishing marriage because an occasional husband mistreated his family. Or, to make a still wider illustration, take the sexual appetite itself. In its abuses it is responsible for an amount of sin and suffering, physical, moral, social, before which all the evils that can be traced to the influence of alcohol dwindle into positive insignificance. But for all that who would dream of any such remedy as the enforcement of universal continence and celibacy?

"Society," says Dr. Everts, "has the right to restrain or coerce any individual whose conduct is obnoxious, even to the extent of wiping him out from among men, and it is the duty of society to protect itself even by resort to extreme measures." If an individual harms no one but himself, directly or indirectly, he is not held responsible to society for his conduct. If society permits itself to be injured by the conduct of individuals society is responsible to itself for the damage done. To ask society to deny itself the pleasure and the benefits of freedom, beyond the necessity of self-protection, for the benefit of individuals, is unreasonable. The strong may and should be generous towards the weak; but they cannot aid the weak materially by renouncing their own strength.

Prohibition has sometimes proved, at least for a time, a partial success; but this has always been in small and sparsely settled communities where public sentiment was favorable to the enforcement of the law; and even in such

cases the success has often been more apparent than real. From time to time a great many local prohibition laws have been enacted in Alabama; and I think I am decidedly within the limits of the truth when I say, that in a large majority of the cases these laws have failed to accomplish the purpose for which their agency was invoked; nay, more than this, that the attempt to enforce them has led to very unpleasant consequences, to the division of communities into antagonistic factions, with a great deal of social and political alienation and bitterness of feeling.

Wherever prohibition has been tried on a large scale it has proved a failure. It has been claimed, indeed, that prohibition has succeeded in the State of Maine; but in the light of such information as is accessible to me the accuracy of the claim is more than questionable. Mr. Vest, of Missouri, in the last session of the United States Senate, made some statistical statements in reference to this matter that are very remarkable if they are true. I quote a few sentences from a newspaper report of his speech:

To show on which side the liquor influence really is, Mr. Vest made an elaborate comparison between the States that voted for Garfield and those that voted for Hancock, of approximately the same population, as to the number of wholesale and retail liquor dealers in each, according to internal revenue returns; showing, he said, that in the Garfield States there were 108,198 retail liquor dealers, against 57,742 in the Hancock States, inhabited by the "whisky-soaking Democracy," giving to gentlemen upon the Republican side, representing, of course, the intelligence and morality and religion and sobriety of the entire country, a clear majority of 50,456 saloons. Carrying the comparison into details, he stated that Maine, with a prohibitory liquor law for 31 years past, had one retail liquor shop for every 791 inhabitants, while West Virginia, with about the same population, and no prohibitory law, had only one saloon for every 816 inhabitants. Iowa had one to every 376 inhabitants, while Texas had only one to every 548. New Hampshire, with a prohibitory law, had one to every 376 inhabitants, while Florida, with the same population, had only one for every 553. Kansas, with a prohibitory law, had one to every 879, while South Carolina, with almost the same population, and no prohibitory law, had one to every 917, and in Massachusetts, under the shadow of Plymouth Rock, there was one liquor retailer for every 244 inhabitants, while North Carolina, with nearly the same population, there was only one to each 708.

But, to confine ourselves specially to the case of Maine, I

extract from the Chicago Tribune the following very remarkable letter. I know nothing of the author; but the broad fact that after a total prohibition experiment of thirty-one years duration, the Prohibitionists in Maine have organized themselves into a distinct political party, goes far towards lending credence to all that he says. "The Agency" he alludes to is evidently that of the City of Portland:

PROHIBITION IN MAINE.

BLOOMINGTON, ILL., Aug. 21.—I happened to be born in Maine the very year the prohibitory law was enacted, and contiued a citizen of the Pine Tree State until a little more than twelve months ago. I have watched the operations of the law with a good deal of interest, and would happily record its success if I could truthfully do so. I am not now, and never have been, addicted to the use of liqtiors in any form, and consider myself a fair judge of the extent to which "prohibition prohibits," as the phrase goes.

In the larger cities of Maine liquor can always be obtained without difficulty, and by the very class of men who make the worst use of it. This is generally true of the small interior towns, except such as would naturally do without it if they were transferred bodily to some local option State. Even in the excepted towns liquor is sold under the strictest espionage. The assertion that the United States government only issues licenses to "druggists and Deacons," who keep liquors for medicinal and communal purposes, is ridiculous; as is also the context that the liquors sold by agencies is used only for these legitimate purposes.

When the law is enforced against the saloon keepers the agency is thronged with patrons, and when enforcement is lax the receipts of the law-appointed grogshops at once fall off. In proof of this assertion I ask your attention to the appended official figures of the income of the agency during a continuous period of eleven years:

Year ending April.	Amount received.
1871	$ 3,005
1872	6,677
1873	19,340
1874	16,482
1875	12,328
1876	1,748
1877	6,500
1878	18,025
1879	9,786
1880	12,007
1881	16,850

The law is enforced more rigidly during years of no political importance than on others. The last half of the year preceding and the first half of the

year of a Presidential election it is customary to "let up" on the liquor dealers for obvious reasons. The consumption of liquor remains unchanged, but patronage is transferred from the agency to the saloons, and from the saloons to the agency again, as circumstances may require. At the same time there are dramshops in Portland—or were a year ago—which have been doing a steady and apparently prosperous business under the same management ever since I first lived in the city, ten years ago. During seven years of that time, as a newspaper reporter, my opportunities for observation were of the best. I am positive that from 1872 to 1880 the number of drinking saloons in Portland was never less than forty, and often reached five times that number; besides, there was always an unlimited supply obtainable from private houses in the slums, where it is retailed from milk-cans—and even more objectionable domestic utensils.

I have taken great pains to verify statistics bearing upon this question, by diligent personal investigation, and I am positive that there is as much drunkenness, liquor-selling, and crime in Maine, in proportion to its population, as in any other section of the Union. The Prohibitionists of Maine have nominated a full State ticket this very year. If prohibition prohibits, why is it that after thirty-one years' trial of the law, its warmest advocates find it necessary to resort to separate political action? Very few people are emigrating to Maine, and hundreds are continually leaving her borders; the men who were born when her law was enacted have grown to middle age; if her restrictive policy has been effective, there ought not to be a single man left who was debauched under the license system, and logically, her citizens should all be temperate. But they are not. Young men continue to get drunk in the State of Maine, and a great many of them, too.

The Portland *Transcript* of last week says: "In the corridors of the police station there are sixty-nine barrels, twenty-eight half barrels, and one tierce of beer waiting to be turned into the sewer." I assure P. S. P. that the men who were relieved of the custody of this beverage were not "deacons" or "druggists," and that no religious service will be interrupted on account of its seizure and destruction. E. R. M.

LEGISLATIVE INTERFERENCE.

But, if prohibition is untenable in theory and impossible in practice, shall the State, therefore, cease to attempt any legislative control of the alcohol traffic, and relegate the work of opposing the evils that grow out of the abuses of alcoholic beverages to social and religious influences, to the schoolmaster and the preacher, and the slow evolution of the principles of moral obligation amongst men? This does not necessarily follow, although it is quite conceivable that this might be the best policy for the State to adopt. All readers of history will remember how, during a period of

several centuries, and in both Catholic and Protestant countries, the power of the State was invoked to compel men to accept the orthodox religion of the time and place with a view to the salvation of their immortal souls; and will remember, too, how, in spite of all the measureless abominations that were resorted to to ensure success, the effort everywhere resulted in utter and ignominious failure. With this great historical lesson before our eyes, it would be easy to contend, that as the State was not able to compel men to be religious, neither can all the power of the State compel men to be sober. All this to me is so clear as not to stand in need of demonstration.

Still, I think that the State can do something for the public welfare in regard to this matter, and that without transcending its own proper powers and functions, and without violation of the legitimate rights and liberties of its citizens. The scheme of legislation which seems to me most available to this end may be briefly outlined as follows:

(1) Considering alcoholic beverages as not strictly amongst the necessities of life, but rather as amongst its luxuries, the State need have no scruple about taxing them at such rates as will bring in to the State, to the counties, and to the towns, the largest possible revenues. And I would have this high taxation imposed, not as an indirect means for the suppression of the liquor traffic, but with the intention purely and simply to raise a sufficient amount of money to carry the liquor laws into execution. For this purpose I would have the whole sum so raised, or so much of it as might be necessary, set apart as a special fund.

(2) I would have the laws now on the statute book in relation to liabilities of liquor-sellers, such as the law prohibiting the sale of liquors to minors, or to persons of known intemperate habits, vigorously enforced; and if the existing laws in regard to the responsibilities of the liquor-seller are not sufficiently comprehensive, or sufficiently definite, or sufficiently stringent, let such other laws be passed

as may be found necessary for the accomplishment of the end in view.

(3) If it is right to make the liquor-seller responsible for the way in which he makes use of his privileges, it is also right that the liquor-drinker should be made responsible for the way in which he uses his privileges. If he outrages public decency by getting drunk in public places he should be punished for it. If he becomes an habitual drunkard and abuses his liberty by mistreating his family and wasting his substance, his liberty should be temporarily or permanently taken away from him, as in the case of insane persons. In the execution of this part of the scheme the rules for restraining drunkards of their liberty might be largely modeled upon those in regard to the commitment of the insane; and at the same time there would be a similar need for hospitals and reformatories, which would have to be supplied out of the fund already mentioned.

(4) The placing of good laws on the statute book is one thing, and the practical enforcement of them is another and a very different thing; and it may be taken for granted that laws of the character of those here indicated would be very imperfectly enforced if their enforcement was left to the ordinary legal machinery of judges, solicitors and juries. In most of the States, for example, there are laws prohibiting the cruel treatment of brute animals, but convictions under these laws are very rarely heard of except in New York, where a special society, namely, the society for the prevention of cruelty to animals, has charged itself with the duty of having offenders arrested and prosecuted. Here in Alabama the administration of the liquor laws might be taken in hand by our various temperance organizations. And I cannot help believing that they would accomplish immensely greater good by first using their influence to induce the legislature to enact such laws as I have here suggested; and then giving their time, money, and influence to have them energetically administered, than they are ever likely to accomplish by the perpetual agitation they are

keeping up in favor of an impracticable scheme of prohibition. Indeed, I think it would be quite worth their while, even as things are now, to turn their attention towards the discovery and punishment of offences against existing laws; although it would doubtless be altogether too contemptible an employment of their energies by the sort of people who busy themselves to send missionaries to Borno-boo-lah-gha.

Would such a scheme of laws as this, under such methods of administration as I have suggested, utterly abolish and destroy all the evils connected with the uses and abuses of alcoholic beverages? Certainly not. All the laws against homicide, with all their dreadful penalties, do not prevent a great many people from being killed. But such a system of laws, properly enforced, would accomplish all that is possible of accomplishment through the medium of State legistion. The residuum of evils would have to be counteracted in some other way, by the influences of the school, of the church, of public opinion; or, else they would have to remain amongst us as do so many other remnants of evil that seem to resist all the efforts that have been made for their destruction.

It may be proper for me to add here that the views presented in this essay in regard to the alcohol question, have been entertained by me for a long time. Recently I have come across a little brochure by Dr. Everts, Superintendent of the Cincinnati Sanitarium, entitled, What Shall we Do for the Drunkard? in which a similar scheme of legislation is advocated. In this work, also, Dr. Everts presents the draft of an act for the prevention of drunkenness, which is here subjoined. It would doubtless need considerable modification to adapt it to the wants of our own State; but in the meantime it will serve as a general model of what such an act should include.

AN ACT FOR THE PREVENTION OF DRUNKENNESS, AND THE PROTECTION OF THE INFIRM.

SECTION 1. *Be it enacted by* . . . That any person, a citizen or resident within the State of . . . . , who may be charged with habitual drunkenness, or with occasional or periodical drunkenness, on conviction of the same, as hereinafter prescribed, shall be declared to be a person of defective or impaired will, and incompetent to manage and control himself.

SEC. 2. Any person who may be in the habit of, daily, using alcoholic drinks, or any preparation of food or drink containing alcohol; or in the habit, daily of using opium, or any preparation containing opium or any of its stimulating or narcotic elements, not prescribed by a reputable physician for the relief of disease, in quantities sufficient to effect his or her physical or mental condition so as, deleteriously, to interfere with the performance of his or her duties as a good citizen; or to affect his or her conduct in a manner prejudicial to the peace and welfare of society; the happiness or prosperity of his or her family; or to in any way render himself or herself dangerous or offensive to community, shall be regarded, for all purposes contemplated in this act, as an habitual drunkard. Any person who is in the habit of becoming intoxicated at certain intervals, more or less frequently, and continuing so intoxicated, from day to day, for a longer or shorter period, known as "a spree," shall be regarded as a periodical drunkard; and any person who may be in the habit of becoming intoxicated occasionally, so frequently as to indicate an inability or indisposition to refrain from so becoming, shall be regarded as an occasional drunkard, and so treated under the provisions of this act.

SEC. 3. Whenever any reputable citizen of the State, having knowledge or information of the fact shall, without malice, make an allegation that . . . is a . . 8 drunkard, and a citizen or resident of the State; naming three or more reputable witnesses by whom the facts alleged may be proved, verified by signature and oath; and shall file the same with any justice of the peace in and for the county where such person is alleged to reside; and shall become legally responsible for all costs which may accrue in such case, provided such allegation is not sustained by the testimony of the witnesses named; then such justice of the peace shall, by request issued, call to his assistance the nearest associate justice, who shall, at a time appointed, as soon as practicable after the filing of such allegation, act in an associate capacity with the magistrate so requesting his assistance; and both magistrates shall visit the persou so alleged to be a drunkard, without previous notice given, if such person is to be found within the county of which they are respectively justices of the peace, and shall communicate to such person the fact of an allegation having been filed, and the names of the witnesses cited, and shall inform such person of the provisions of this act, as hereinafter specified, for the protection of such persons as the same may have been alleged to be; whereupon if such person, without denial of the allegation made, shall consent, without further proceedings, to accept the protection provided by this act, said magistrates shall make out a commitment in due form, and place such person in the custody of any constable or deputized person, with whom the execution of such commitment may be discreetly trusted, and such person shall so stand legally committed, to be disposed of as hereinafter specified.

SEC. 4. Whenever any person, a citizen or resident of the State, alleged to be a drunkard within the meaning of any of the specifications of this act, shall, on presentation of facts, as set forth in section 3 of this act, deny the allegation of drunkenness, and refuse to voluntarily accept the protection offered by the provisions of this act, then the magistrates who have presented such allegation, and the alternative hereinafter specified, shall order such person in arrest, by warrant issued to any constable or deputized person within their jurisdiction, with summons to appear before them at a time fixed, without delay, then and there to be present at the examination of witnesses who may be subpœnaed to testify in the matter of inquest; Provided, such person may have process for witnesses, to testify in his or her behalf; but shall not so testify himself or herself; and may employ an attorney for the examination of witnesses, but not for argument; nor shall such magistrates entertain any motion made by such person or attorney which, in their judgment, is intended to delay proceedings or otherwise obstruct the proper execution of the provisions of this act.

SEC. 5. Whenever, in consideration of all the testimony heard, both magistrates hearing such testimony shall be satisfied that the person alleged to be a drunkard, is a drunkard within the meaning of any of the specifications of this act, they shall hold such person, if found to be an occasional drunkard, or a periodical drunkard only, to bail secured by not less than two responsible citizens of the county, in a sum of not less than five hundred dollars, nor more than two thousand dollars, to be forfeitable and payable to the State in case the person so held to bail shall, within a year and a day after the date thereof, become intoxicated or drunken, in the common acceptation of the term; and shall, on presentation of such security, be released from further custody. But every person who shall, on examination, be found to be an habitual drunkard, within the meaning of the specifications of this act, or shall decline the terms of bail, or shall fail to procure satisfactory bondsmen within a reasonable time after being found to be a drunkard by the acting magistrates, shall stand committed, and be disposed of as hereinafter provided.

SEC. 6. Any person, a citizen of the State, who may voluntarily go before any magistrate or judge of any court within the county of which he or she is resident, and make oath that he or she is addicted to the use of alcoholic drinks, or opium, or any of the preparations of the same, to an injurious degree; and finds himself or herself unable, without protection, to refrain from such indulgence, and ask to stand committed, and to receive the protection afforded by the provisions of this act, such person, within the discretion of such magistrate or judge of court, shall so stand committed, and be disposed of, by such magistrate or judge of court, as hereinafter provided.

SEC. 7. The governor of the State shall, on the . . . day of . . . or as soon thereafter as practicable, with the approbation of the senate, appoint and commission a board of trustees, to consist of five reputable and well-known citizens of the State, to act and be known as "The State Board of Trustees of Hospitals for the cure of Drunkenness, and Conservatories for the Protection of the Infirm." The tenure of office of such trustees shall be . . . years, and until their successors are appointed and qualified.

SEC. 8. As soon after the appointment and qualification by the usual oath of office as may be convenient, the members of such Board of Trustees for State Hospitals for the cure of Drunkenness, and Conservatories for the protection of the Infirm, shall meet, at a time and place indicated by the governor, and shall proceed to organize, by the selection of one

of their own members to act as permanent president of the board, and the appointment, by election of a permanent secretary, with salary annexed, who may or may not be one of the trustees appointed; and shall provide themselves, by requisition upon the Secretary of State, with all useful materials and office accomodations for the proper discharge of their duty as such trustees. They shall also make and adopt all by-laws, rules, and regulations for their own government in the discharge of their duties, which may be found necessary, and not in conflict with the laws of the State.

SEC. 9. It shall be the duty of the board of trustees provided for in sections 7 and 8 of this act, as soon as practicable after perfecting its organization, to select aud purchase, or receive as a donation a proper site, which shall be conspicuous for salubrity and accessibility for the construction and equipment of a parent or central state hospital for the cure of drunkenness, and a conservatory for the protection of drunkards. Such site shall comprise not less than . . . acres of ground, in all respects adapted to the uses to which it is to be appropriated, for agricultural and other purposes, the cost of which shall not exceed the aggregate sum of . . . dollars.

SEC. 10. After securing a suitable site as indicated in section 9 of this act, the board of trustees shall construct or cause to be constructed a hospital building, in accordance with approved plans and specifications, the capacity of which shall furnish accommodation for not less than one hundred patients, and all needful resident officers and employes. The board shall also construct all necessary detached boarding houses for the accommodation of not less than three hundred persons, and necessary officers and employes, and all such shops, barns, and outbuildings as may be found necessary; and shall equip such premises with all necessary furniture, apparatus, machinery and implements, and all such stock, cattle, hogs, horses, mules, etc., and all such raw materials to be used in manufacturing which may be profitably employed in carrying on such various industries as may be found or deemed profitable, and conducive to the welfare of such persons as may be committed in conformity with the provisions of this act to such hospital and conservatory; provided, such board of trustees shall be limited in their expenditures in any given year to the amount of money specifically appropriated by the legislature for their use, and shall not contract any indebtedness which can not be met by an appropriation already made.

SEC. 11. As soon as so much of such construction, specified in section 10, has been completed as will furnish accommodation for twenty-five patients, the board of trustees may appoint a superintendent of the hospital, who shall be a well-known, skillful and reputable physician, who has practiced his profession for not less than fifteen years as a general practitioner, who shall become the executive officer and physician of such hospital, and shall open the same for the reception of patients, and prescribe for all patients received all medical and disciplinary treatment necessary for the restoration or comfort of such patients; and shall, with the approval of the board, appoint all necessary assistants and servants for the proper conduct of such hospital.

SEC. 12. Whenever ten or more patients who have been admitted to the hospital for the cure of drunkenness, shall have so far recovered from the disease as to be able to perform physical labor, and to be benefited thereby, in the opinion of the superintendent of the hospital, the board of trustees, on notification of the fact by the superintendent, shall appoint a governor of the conservatory for the protection of the infirm, who shall be a man of good reputation and well qualified to

direct and control the labor to be performed by all such persons as may be transferred from the hospital for the cure of drunkenness to said conservatory. The governor of the conservatory for the protection of the infirm shall be the executive officer, and have charge of all the boarding houses, shops, and tillable lands belonging to the coonservatory, and shall, with the approval of the board, appoint and employ all necessary subordinates, foremen of all departments, required to carry on the various industries found or deemed to be profitable; and necessary for providing materials, disposing of wares, keeping books, etc.

SEC. 13. Whenever, in the opinion of the superintendent of the hospital for the cure of drunkenness, any patient admitted thereto shall have so far recovered as to be able to perform physical labor, and be benefited thereby, the superintendent shall certify the fact to the governor of the conservatory, and shall transfer such patient from the hospital to the conservatory, and the custody of the governor of the same.

SEC. 14. Whenever the governor of the Conservatory for the Protection of the Infirm shall receive notice from the superintendent of the Hospital for the Cure of Drunkenness of the transfer of a patient, as provided for in section 13 of this act, he shall take charge of such person, and assign him or her to proper quarters in a boarding house, and to such duties of an industrial nature as he may deem most appropriate and profitable for such person to perform; and shall thereafter care for and regulate the conduct of such person, subject to the advice and approval or direction of the board of trustees; provided that whenever such person shall claim to be disabled or disqualified for duties assigned, by reason of sickness or physical infirmity, such person shall be entitled to an examination by the superintendent of the hospital or his assistant, and, if found so disqualified, shall be subject to the direction of the superintendent temporarily, as to the performance of duty; or may be returned to the hospital for medical treatment until fit for duty

SEC. 15. An accurate account shall be kept by the proper officers of the hospital and conservatory, of the cost of all materials consumed for the maintenance of their respective departments, and of all incomes from the products of labor performed by the inmates of the conservatory, and after deducting from the aggregate expenditures of the combined departments of hospital and conservatory, all accounts of salaries of officers, cost of materials for subsistence and manufacture; cost of repairs, and renewal of implements, etc., the surplus of income, if there shall be any, shall constitute a fund to the credit of labor performed by inmates, against which fund shall be charged each day's labor performed by any inmate, at a reasonable rate, to be fixed by the board of trustees, adjusted in accordance with the relative value of skill and strength expended or employed in the labor performed.

SEC. 16. Whenever any inmate of the Hospital for the Cure of Drunkenness or the Conservatory for the Protection of the Infirm shall be discharged by reason of the expiration of time of commitment, his or her individual account shall be adjusted, and if it shall appear that he or she has earned more than the net cost, *per capita*, of maintenance, including clothing, after the deduction of expenditures, as specified in section 15 of this act, for the time during which such person has been an inmate, then such person shall be entitled to, and shall be paid out of any available fund, the amount to which he or she may be found entitled by reason of such surplus of earnings above cost of maintenance; provided all moneys found due any inmate who has an indigent family, incapable of self support, at the end of each month, may be paid on proper vouchers, and at the discretion of the board of trustees, to such family, or to some suitable trustee, for their benefit.

SEC. 17. The salaries of all officers, and the expenditures for all real estate, construction, implements, and repairs, and for all live stock and raw materials used and consumed in the administration of the affairs of the hospital and conservatory provided for by this act, shall be drawn from the state treasury, after general specific appropriation made by the legislature; and all moneys received from whatever source as income, other than from the state treasury, shall be paid into the state treasury, and credited to the account of the hospital and conservatory fund.

SEC. 18. All fines levied and collected by any court or magistrate having jurisdiction, for any violation of any law licensing or regulating the traffic in fermented or distilled liquors, or any other intoxicant, within the state, shall be paid into the state treasury, by county treasurers, to whom they shall be paid by such courts or magistrates as may collect them, and shall be placed to the credit of the hospital and conservatory fund.

SEC. 19. Fifty per cent of all moneys received by the state, county, city, or other corporations authorized to grant license for the sale of fermented or distilled liquors or other intoxicants, within the state, shall be paid into the state treasury by the officers first receiving it, and shall be credited to the hospital and conservatory fund.

SEC. 20. All druggists, apothecaries, or other persons selling or keeping for sale any proprietary medicines, or compounds, bitters, cordials, invigorators, cough syrups, expectorants, or other preparations containing alcohol or opium, or any compounds or derivatives of the same, otherwise than as prescribed, without intent to evade the law, by well-known and reputable physicians for the relief of disease, shall be required, by the county or city authorities granting such, to procure license for the sale of intoxicants, the same, and subject to same conditions, as may be required of persons selling fermented or distilled liquors as beverages; and the entire revenue derived from such licenses shall be paid into the state treasury, and placed to the credit of the hospital and conservatory fund.

SEC. 21. Whenever any person stands committed as a drunkard, by voluntary submission, application, or after inquest, as provided for in the preceding sections of this act, the magistrates or judge before whom such person stands committed shall cause such person to be conveyed, in a proper manner, as soon as practicable, in custody of a proper officer, and delivered to the superintendent of the Hospital for the Cure of Drunkenness, to whom shall be transmitted, at the same time, an official copy of the finding of the inquest and warrant of commitment; provided always that it shall be specified that such commitment is for a term of not less than six months for occasional and periodical drunkenness, and not less than one year for an habitual drunkard; and provided, further, that such magistrate shall have ascertained, by official notice, that there is room for the reception of such person in such hospital.

SEC. 22. When any person legally committed, shall be refused admission to the Hospital for the Cure of Drunkenness because of want of room, such person may be paroled by the committing magistrates, or to remain in custody within certain limits, until such time as there may be room for his or her admission to such hospital—of which the superintendent shall give due notice—when such magistrates shall cause such person to be conveyed and delivered as prescribed in the foregoing section of this act; provided, should such person so committed and paroled refrain from the use of intoxicants voluntarily and entirely until the expiration of the time for which he or she was committed, before notice of room in the hospital shall be received by the magistrates, then such

person shall be absolved from such commitment; but shall stand upon the same footing as a person discharged from the hospital or conservatory by expiration of term of commitment.

SEC. 23. Any person who shall have served a regular term of commitment in the hospital or conservatory provided for by this act, shall be subject to recommitment on presentation to either of the committing magistrates or their successors, or to any other magistrate in the state, of proof, by two reputable witnesses, that such person has relapsed or has been again intoxicated; provided, if such proof be made before other than a magistrate who certified the original commitment, proof that such person has once been committed to the hospital or conservatory shall also be required; whereupon such magistrate shall cause the arrest and redelivery of such infirm person to the superintendent of the hospital as before, to be detained for a period of not less than six months or one year, according to the tenor of the first commitment.

SEC. 24. It shall be the duty of the superintendent of the hospital and the governor of the conservatory to make all necessary provisions for the safe-keeping of persons committed to their custody, by such practicable methods prescribed by the board of trustees as shall avoid, as much as possible, the appearance of prison life and manners, and yet command the respect of inmates who may be disposed to test their efficiency.

SEC. 25. Any person who may escape from the Hospital for the Cure of Drunkenness or the Conservatory for the Protection of the Infirm, before the expiration of the term of commitment, shall be subject to arrest at any time and any where found within the state, on requisition of the superintendent of the hospital or governor of the conservatory, in writing, or by telephone, or telegraphic communication; and it shall be the duty of every sheriff in the state, on receipt of such request, with information of the probable whereabouts of such escaped person, if within the bailiwick of such sheriff, to cause the arrest of such person, and return of such person to the hospital or conservatory; and such request shall be the ample warrant and justification of such officer for such arrest.

SEC. 26. It shall be unlawful to sell or give to any inmate of the Hospital for the Cure of Drunkenness or the Conservatory for the Protection of the Infirm, whether licensed to sell or otherwise, any drink or drug of any kind, of a stimulating or intoxicating nature, other than such as may have been prescribed by the superintendent or his assistant; and any person who shall so sell, or give, or aid and abet any such inmate in procuring, in any way, any such drink or drug, knowing such person to be an inmate of such institution, on conviction of the same in any court of criminal jurisdiction, shall be deemed guilty of a felony, and shall be liable to fine and imprisonment, one or both, at the discretion of the court.

SEC 27. Whenever it shall be made to appear, by the official report of the board of trustees of the State Hospital for the Cure of Drunkenness, etc., that its operations have resulted beneficially, by an accomplishment of the ends designed, and that the capacity of the hospital and conservatory are unequal to the demand made upon them for accommodations, by and with the advice and consent of the governor of the state, the board of trustees provided for by this act shall proceed to locate, purchase lands, construct, organize, and equip a branch hospital and conservatory at some eligible point in the state; and in so doing shall proceed in all respects as directed by the provisions of this act; and such branch hospital and conservatory shall be governed and conducted by them upon the same general principles, and the same gen-

eral methods by which the central or parent institution is governed and conducted, and it shall be the duty of the board to continue to establish, organize, and govern such branch hospitals as necessity may require, assigning to each the committals of specified districts, embracing certain counties, to be accommodated, until otherwise commanded by an act of the legislature.

SEC. 28. Any person committed as a drunkard, in accordance with the provisions of this act, who may signify a preference, may be sent to any reputable private hospital within the state where drunkenness is professionally treated as a disease; provided such person, by himself, or herself, or friends, can secure admission to such private hospital without expense to the state; and provided the authorities of such hospital will assume custody and control of such person for the full term of his or her commitment.

SEC. 29. Any regularly incorporated private hospital, well equipped for the purposes of a hospital for the cure of drunkenness and the protection of the infirm from the influences of intoxicants, may receive persons committed by law as drunkards, and exercise all needful authority for their cure and custody, and may demand of any sheriff the arrest and return of any escaped patient so committed at the expense of the hospital, and may receive such compensation for such treatment and custody of persons so committed as may be agreed upon by them and the bondsmen of the parties so committed.

SEC. 30. The board of trustees created by this act shall require monthly statements, and annual reports, from the superintendent and governor appointed by them; and shall itself make an annual report to the governor of the state, giving an account of the proceedings of the board, and a detailed history of the general conduct of the hospital and conservatory, with results, for the year.

SEC. 31. All money drawn from the treasury, for the purpose of carrying into effect the provisions of this act, shall be drawn by requisition of the board of trustees, which requisition shall be appended to itemized vouchers, showing for what such money is required, and payable only to the party to whom such money is due; and each itemized voucher, to which such requisition shall be attached, shall be verified by the party claiming money due; that such exhibit of indebtedness is correct, and that the items so charged were all furnished and delivered as specified, at rates current for such items, or in accordance with written contracts, made upon the basis of accepted competitive proposals, a duplicate of which itemized vouchers shall be kept on file in the office of the board.

SEC. 32. This act shall be in force from and after its passage.

THE EPIDEMIC OF ROTHELN IN AUTAUGA CO.

BY WYATT W. GOLSON, M. D., OF INDEPENDENCE.

The first case of rötheln I was called to see, occurred in the north-western portion of the county, on Little Mulberry Creek. From thence it spread south-east, seeming to prefer damp sandy sections for its development and spread. The first case occurred fifteen months ago, and spread slowly until about three months since, when it appeared in all localities, high and low alike.

Last summer there would be but one case showing itself here and there, but, after the winter sat in, it spread rapidly, caused probably by the greater social intercourse amongst the people. Some few families took the disease apparently without being, or having been in contact with those already affected. At other times, the disease seemed to spread by contagion. I could find no cause for this, as cases would spring up sporadically—nine in one family becoming ill from it. The first three were boys who, of themselves, claimed to have contracted the distemper by exposure to damp and cold whilst out hunting coons, having been in the mud and water every night for one week following their dogs. Six of the family had the disease in a very short while after the first three were taken, and in from eight to ten days afterwards, a relative of the family who had visited them sickened also with the fever.

It has now about exhausted itself for the want of material, yet I find a great many persons throughout my field of labor suffer still from the after effects of the disease, the nose and throat, with some fever, being most prominent. Now and then a case would present itself, having the skin trouble, and much annoyed by a sensation as if preyed upon by fleas.

The pulse in individuals attacked with rôtheln ranges from 85 to 100 beats the minute, and is easily compressed. Few have any great thirst. The stomach and bowels are seldom deranged. There are, sometimes, nausea and vomiting. This is due to the effort to get up the thick, tenacious phlegm which is secreted slowly. There is also a discharge from the posterior nares, not abundant, but is also difficult to dislodge. These combined, renders breathing difficult and troublesome, especially when the patient falls asleep and awakens suddenly. This fever is readily differentiated from measles and other eruptive diseases, and may be thus written.

In measles, the fever is intermittent from the first, the eruption appearing in seventy-two hours, when all the symptoms become better, with no glandular enlargement.

In scarlatina, the fever and rash generally come on together. The eruption is uniform, and heat of surface very great.

In rötheln, the fever is continued, precedes the eruption from three to five days and remains persistent and severe until the eruption fades, when the epidermis comes off in branny scales, not so large, however, as in scarlatina. After desquamation there is a general feeling of numbness over the whole cutaneous surface, caused, probably, by the destruction of the area of sensibility. This, I think, is a diagnostic symptom of the disease. Frequently an arm, or the whole side becomes very tender to the touch, and voluntary motion is lost or suspended for the time. This rarely occurs, if at all, in any other of the exanthemata. Its frequency may be said to be about one-fourth more.

The color of the rash in measles is of a dark venous color, sensible to the touch when freely out, and after desquamation leaves the skin smooth.

In rötheln, this is reversed, namely, color ruddy brown. After desquamation, the skin is sensibly rough and elevated.

In scarlatina, the color is scarlet. In erysipelas, the rash precedes the fever; the sense of heat and scald is per-

ceptibly felt, and very painfully so by the patient. Friction from any wooden fabric worn next the skin produces an irritation very annoying. This is not the case in rötheln.

In erysipelas, the color of the skin disappears on pressure; in rötheln, it does not. In dengue, the tongue is coated a white fur; in rötheln, yellow. In dengue, there is great arthritic and muscular pains, and has a distinct time for the appearance of the eruption. In epidemic erysipelas, there is much more frequent ulceration of the throat; the tongue is dark, while the breath has no odor peculiar to itself. In rötheln, there is no characteristic odor of the breath or skin. In measles and small pox, the odor is distinct and not to be forgotten.

In rötheln, the eruption is variable in appearance, as in dengue, but is always thrown out in from three to five days from the outset of the fever. In two days more the fever subsides. Patients affected with rötheln regain strength very rapidly after the subsidence of the fever, few being unable to set up the day after the fever leaves them. Children, during the period of teething, when attacked with rötheln invariably have ulceration of the gums, sore tongue, and inflammation of the submaxilary and sublingual glands; the latter very much swollen, whilst the discharge from one or both ears is more or less copious. This is the rule in almost all my patients. When the inflammation and swelling is extreme, I invariably paint the affected surface with tincture of iron, as its application gives the little sufferer no pain. The usual termination in such cases is by suppuration. The swollen gland should not be cut too soon, if the lance is thought of. You should wait until the walls of the abscess are thin and soft to the touch. There is no danger in delay. I always bind a piece of fat bacon to the rising, as it is convenient and readily applied. If left alone, indeed there is no danger from absorption, at least I have never seen any bad results myself, although I have delayed emptying the sack for three weeks.

If an adult have affected teeth, they, in every instance,

suffer greatly from them during an attack of rötheln; also, with the frontal sinus and autrum hymorianum, or the ears, or submaxilary gland, or in both, and sometimes from all.

My treatment is the free use of chlorate of potash in all cases, mild or severe, together with syrup of ipecac, for the first two or three days. The muriated tincture of iron, I use in every case, especially in scarlatinous cases. Morphine I never fail to use, as it acts promptly and well in inducing rest and sleep. For the cough present in this disease, I give a saturated solution of the tincture of belladonna to correct the secretion of mucous, and to keep up a free capillary circulation.

Some cases in point may be of interest. Mr. J. D., aged twenty-three years, was taken sick with a fever without any perceptible chill or rigor in February, the fever continuing unabated for many days. The eruption appeared on the third day, was of a rose color, and spread over the entire surface of the body. The skin of the face and eyelids were very much swollen or thickened, but were smooth to the touch. He had a very bad cough and sore throat; tongue yellowish brown; great pain in swallowing; what he coughed up and spit up was a very tenacious phlegm tinged with yellow. I gave him chlorate of potash in substance, in five grain doses every three hours, together with one-eighth grain morphine every four or five hours, to relieve the cough and to induce rest. I also gave a saturated tincture of belladonna in three drop doses every three or four hours. The eruption disappeared on the sixth day from the commencement of the fever, and remained out three days, when all bad symptoms also disappeared.

His left arm was very sensitive and painful to the touch, and he had no power to move it at will. There was no disturbance of either stomach or bowels. On the seventh day he was able to be up, yet he complained of numbness over the whole cutaneous surface, and seemed much debilitated. The skin peeled off in branny scales quite perceptible to the eye, rough to the touch, and looked like the palmar surface

of the hand after shelling corn from the cob, when one is not accustomed to such labor.

The cuticle appeared jagged and torn. In three days, four more cases occurred in the same family, and went through the same course, except in the variety and appearance of the eruptions, some being confluent and others in patches.

The sixth case had affected teeth, thus involving the ears and glands in the region of the throat. In all the eight cases in this family, only one had a slight eruption, and this was scarcely perceptible; three had earache, with the characteristic smelling and discharge; the glands of the neck were swollen in one; and in none did I observe redness of the coujnctivæ.

On the 14th of February, three of my own children were attacked with fever, one an infant five months old. The eruption appeared in all three in from three to five days. The fever continued as long as the eruption remained, and invariably went off on the third day. The pulse in all three cases ranged from 85 to 100. In no case did the surface feel unduly hot. The youngest child had less fever. One had an affection of the ear, without discharge. In about three days, the remaining members of my family had the fever, the eruption appearing on the fourth day in all but one, when it disappeared in a few hours. This patient, a boy sixteen years of age, seemed to recover rapidly, and went to work on the seventh day, when a relapse took place, with return of fever and eruption, the latter remaining out only three days, when both fever and rash disappeared. After this, he rapidly and permanently recovered.

My treatment in all these cases was the administration of chlorate of potash, belladonna and morphine. I may mention that no derangement of the stomach or bowels occurred, but there was a marked want of appetite, especially on the second day of the eruption.

The fever, with accompanying sore throat, in all these cases, continued until the rash disappeared. In no case

yet observed have I ever been able to detect the eruption by touch. In some instances, however, it appeared to the eye to be raised.

On the 1st of March, I was called to see a child of Mr. M., a girl thirteen months old. She had fever—pulse about 90; refused the breast; exhibited much suffering from throat trouble when she attempted to swallow. The fever continued four days, when the eruption appeared, and soon covered the whole surface of the body, face and hands. It was of a darker color than that seen in scarlatina. She was teething; had aptheous patches over the whole mouth. Both ears ran, and discharged freely; also, the submaxiliary glands became enlarged; symptoms grew distressingly worse. I caused the glands to be painted with tincture of iron, and commenced the use of iron, three to four drops every three or four hours; also, a sat. solution of chlorate of potassa, teaspoonful four times a day, and one-half drop sat. tinct. belladonna every four hours. The little case was relieved of all of its bad symptoms in seven days. The ears discharged a little, and was not painful. The balance of Mr. M.'s family, seven in all, had the disease. No marked symptoms. One had an abortive attempt; went about four or five days, then was taken down again, and had a regular attack. I used tincture of iron in only one other case in the family, as it showed some symptoms of ear and gland affection. Three had earache, and two soreness of one arm and shoulder. I have treated something over two hundred cases. No case died from the immediate effects of disease. Two died from constitutional effects. The patients were between three and five years of age, and of scrofulous habits. One died from hemorrhage of the gums and nares, and two from congestion, in about three weeks after the attack, and after all symptoms of the disease had disappeared. My health was bad, and I had not seen them, nor had I been consulted about them for over a week previous to death. I think had tincture of iron been given freely, they all might have been saved. This treatment would have been adopted had I been consulted.

One case, a boy about eight years of age, had sore throat, with all the symptoms of rötheln. Only slight eruption appeared. He seemed to recover in about a week, save on one side he had lost all power of voluntary motion. In a few days more, the power of speech was lost. He had all the symptoms of a severe case of chorea. I blistered the upper portion of the spine; teemed cold water over the spine from a pitcher, one-half gallon every morning; gave precipitated carbonate of iron, in about ten or twelve-grain doses, three times a day; also, twenty drops of tincture of valerian, and used about five-grain doses of iodide of potassa three times a day; also, gave aloes to keep the bowels open. In three weeks, the little patient had entirely recovered, and had gained entire control of his muscular power. His speech was also as good as ever. He has had no bad symptoms since, and seems to be growing and enjoying perfect health.

ECLAMPSIA GRAVIDARUM, PARTURIENTIUM ET PUERPERIUM.

BY BENJ. HOGAN RIGGS, M. D., OF SELMA, ALABAMA,

Ex-Secretary, Grand Senior Counsellor, and Member of the Board of Censors and Committee of Public Health of the Medical Association of the State of Alabama.

Last year the able leader of the Omnibus discussion, Dr. Geo. A. Ketchum, of Mobile, proposed, among other subjects presented for our consideration, the very important one of Puerperal Convulsions. He spoke of it only as incidental to the subject—"What condition of the kidneys and symptoms growing out of them demand the induction of premature labor, with best method of inducing it?"

The discussion arising upon this subject was a fit illustration of the vague character of the pathology of puerperal convulsions. Every one who investigates the literature of this disease will be impressed with the variety of views of the teachers.

It is from a desire to put on record some views I have on this subject, that they may be spread abroad and benefit the doctor and his patients, that I am prompted to write.

I hold that it is the duty of every physician to think for himself; earnestly and dispassionately, and as learnedly as his opportunities will allow, and accept unquestioned the dictum of no man.

What disease is more worthy of our earnest attention than child-bed convulsions? See a female form horridly distorted, in the grasp of the riotous action of her own muscles; anguish depicted on the face until consciousness is lost; maternity passing through an exquisite ordeal; human life at stake; the life of a wife, perhaps already a

mother, and the life of a child! Who can estimate the value of these lives, if saved?

Again, no subject is more worthy of our earnest attention, apart from the distressing nature of the suffering, because of the great mortality under ordinary treatment, and the very erroneous views of its pathology, as held by the leaders in the profession.

I have thought a great deal upon this subject for years past, and, as a consequence, have been compelled to differ with great authorities and hew out a path for myself. I have fully realized the gravity of the situation. I am glad to be able to state that I have supporters in the professional ranks of original thinkers at home and elsewhere in the Union, as will be found further on.

In Mobile, in April last, I am quoted, in last year's Transactions, as saying, I "held that all puerperal convulsions were epileptiform. He knew that this was different from the teachings of the authorities who attributed them to uræmia, parenchymatous nephritis, cerebral anæmia or hyperæmia, dammed up effete matter in the blood, pressure, etc., still he held his own views and acted on them successfully in practice. If a woman in Bright's disease became pregnant, he believed she could be safely carried to term by proper treatment. He held that anæmia and hyperæmia of the nerve centres was secondary to the prime lesion; and so was the albumenuria; the disease was neurotic in character, and not due to pressure of the gravid uterus, or acute nephritis. The pathological state was due to peripheral irritation acting on the excito-motor centre or centres, and the double vision, the central blood stasis, the blindness, the giddiness, the puffed eye-lids, the stertorous breathing, the anasarca, the flushings—the sure admonitions of the eclamptic outbreak—were but the result of this central nervous derangement. The condition which results in convulsions is essentially a neurosis."

Such is, in brief, the view I announced then of the pathology of eclampsia. More matured reflection has but served

to strengthen and confirm it. I find myself not singular in this view, but have two able, outspoken supporters in Dr. J. P. Thomas, of Pembroke, Kentucky, and Dr. C. H. Ohr, of Cumberland, Maryland. I do not lay claim to originality, but do claim independence in espousing and advocating this view against such formidable opposition by learned authorities.

Dr. Thomas, in "An Address on Puerperal Eclampsia," read by invitation before the "Christian County Medical Society," and published in the September number of the Richmond & Louisville Medical Journal, 1877, uses the following language, pages 15 and 16: "After all their mechanical, albuminous, and anæmic theories, the latter a very anæmic one, we will have to return to the brilliant theory of Marshall Hall—'the reflex motor action of the nervous system'—for any near approach to a solution of this vexed question of the cause or causes of puerperal convulsions. * * It is to the presence of the gravid uterus we are to attribute this disease, not to an injured brain, produced by sympathetic mechanical pressure, nor to the poisonous effects of retained urea, nor to a vitiation of the blood by a waste of albumen, nor to a depletion of the brain of its blood supply—anæmia. * * We must, therefore, without more conclusive evidence than the experimental vivi-sectionist has or can produce, adhere to the old theory, that the cerebellum and its ganglia are the controlling agents in the production of muscular movements. And to the peculiar irritation of the uterine system transmitted to the spinal system by the incident nerves of the excito-motor system, and thence to the medulla oblongata we attribute the eclamptic phenomena."

Again, the learned and experienced Dr. Ohr, in a reprint now before me, from the American Journal of Obstetrics & Diseases of Women and Children, Vol. xvi, Nos. I and II, 1883, entitled "Genito-Neuroses in the Female," uses the following language on pages 4 and 10, to-wit: "The first topic to be discussed is 'eclampsia.' It is ordinarily divided

into E. Gravidarum and E. Infantum. First of puerperal convulsions, because of their greater importance and danger. A wide difference of opinion exists among writers as to the cause of puerperal convulsions, in consequence of which there is an equally great difference with regard to its proper treatment. These differences are attributable in a great degree to a fanciful nosology and an erroneous etiology, both of which it is here proposed to discard, and to class the disease as 'genito reflex neurosis.' Its origin or cause has advocates on various theories—as hyperæmia, hydræmia, anæmia, uræmia, toxæmia, nervous irritability, and last, though not least, albuminuria. * * Enough has been said to justify me in announcing my opinion, and to do so decidedly as to the etiology, pathology, and, if you please, nosology of eclampsia, to-wit: a reflex neurosis, always, and under all circumstances."

Dr. Thomas, Dr. Ohr, and myself, all arrived at a parallel view of the pathology of this disease entirely independent of each other and without concert of action without any personal acquaintance with each other. A communication to Gaillard's Journal by me, in which I alluded to this view, caused Dr. Thomas to send me his paper above alluded to. Dr. Ohr's article, in the Obstretric Journal, was the means of my acquaintance with his view; and I was the means of acquainting Dr. Ohr with Dr. Thomas' view. I had read Dr. Thomas' paper prior to announcing my opinion last year in Mobile. Dr. Ohr's has come to my knowledge since. Both of these articles are worthy the attention of every practitioner of medicine. I regard the paper of Dr. Ohr as especially instructive and entertaining; it shows much of the character of the medical philosopher.

We three agree as to the neuropathic nature of eclampsia, but differ somewhat as to the essential pathology. Dr. Thomas attributes it to the peculiar irritability of the uterine system. Dr. Ohr says: "According to my observation, eclampsia does not always depend upon, nor is it devel-

oped by a single, or the same cause; but the ordinary or most common cause is stenosis or stegnosis."

After much study I have determined that eclampsia puerperium, like eclampsia infantum, has its seat in a diseased state of the great sympathetic or organic nerve.

This system of nerves is greatly concerned in pregnancy, as is shown by the enlargement and increased activity of every organ in the body, and the stimulated activity of the great system of the vaso-motors.

This increased functional activity of the organic nerve is natural, but it becomes deranged in pregnancy by a variety of, I may say, accidental causes. In some women there is, by temperament, a peculiar irritability of this nerve which makes it especially impressionable. Uterine irritation materially affects this great system of nerves. Great anxiety and worry and strong emotional excitement retroact on the sympathetic system through the brain. Disorders of the digestion are great factors in developing deranged action in this system, such as come from imprudence in eating either in quantity or quality, especially at night, and neglect of daily alvine dejections. This deranges the chylopoietic viscera, and the great solar plexus, and all its numerous distributions suffer. According to my observations, imprudence in diet is a very common cause of puerperal eclampsia.

The pathology of the so-called sympathetic nerve is obscure. Like the spleen, its physiological function is not well understood; yet its size and extent give assurance that its use must be important, and its derangements sorely felt. Its branches envelop every artery and arteriole as closely as the vine the vine-covered trunk and limbs of the tree in the forest. Excitation of these branches and consequent spasm of the arterioles has much to do with the stagnation of the blood current in the central organs; paralysis of the same and consequent relaxation of the capillaries have much to do with its stagnation in the arterioles.

Disease of the sympathetic is considered to be the cause of hemicrania, angina pectoris, unilateral progressive atro-

phy of the face, Basedow's Disease, etc., Eulenberg, vol. xiv., Ziemssen's Encyclopedia. In diabetes the renal sympathetic is found to be enlarged and thickened.

The solar plexus seems to be a secondary nervous centre of no small importance; it is large, and sends off large branches to the liver, spleen, mesentery, kidneys, the pelvic viscera, and, in connection with the pneumogastric nerve, to the stomach.

The two parts of the sympathetic unite below at the ganglion impar or coccygeus; above, it starts, it is held by some, at the ganglion of Laumonier or Caroticus, one on each side of the head. The ganglion of Laumonier is united with the great cerebro-spinal system by receiving a branch from the sixth cerebral pair (the abducens oculi), and a branch of the trifacial through the vidian nerve. Besides this connection with the medulla oblongata, the sympathetic has continuous connection through the medulla spinalis by branches of nerves which ascend to the brain. We thus trace connection of the sympathetic directly through the fifth and sixth cerebral pairs of nerves, and spinal branches also, to the medulla oblongata. Physiologists locate here the excito-motor and the vaso-motor centres. The floor of the fourth ventricle, under the pons varolii, seems to be a common centre for all these actions. "Claude Bernard found that irritation of the renal nerves and of a certain spot in the floor of the fourth ventricle, higher up than the diabetic puncture, caused albumen to appear in the urine of animals."—Reynolds, vol. III., p. 641. The same distinguished authority found that irritation of the vagus roots in the floor of the fourth ventricle produced sugar in the urine in half an hour.

"With regard to the anatomical starting point of general convulsions in the epileptic seizure, numerous experimental studies have been published. As already related, Kussmaul and Tennier established it in the parts of the brain lying between the spinal cord and the crura cerebri, consequently, in the pons and medulla oblongata. Brown-Sequard and

Schiff arrived at analogous conclusions. Then I have shown that the convulsion centre, *i. e.* that circumscribed spot from which the whole body of the voluntary muscles may be thrown into tonic and clonic spasms, through reflex irritation, is to be sought for in the pons."—Nothnagel, Ziemssen, vol. xiv., p. 198.

There is an effort being made in experimental physiology to transfer the controlling agency of the muscular system to the cerebral convolutions. This system is termed cerebral localization. Their conclusions, however, do not do way with the conclusions of Claude Bernard, Brown-Sequard and others. Still, it is easily demonstrated that there are continuous fibres of nervous matter from the spinal cord through the medulla oblongata to the cerebral hemispheres.

There is no difference between the phenomena of eclampsia gravidarum and eclampsia infantum. The convulsions present the same physical features; and I presume that pathologists were led to so widely differentiate them by the frequent albuminuria and occasional interstitial nephritis in the former. The child that is thrown into convulsions by crude ingesta in the stomach or by teething, presents the same features that the woman does who has convulsions in pregnancy or in child-bed. "The physiological constitution of the central nervous system in children is so modified as to cause them, upon very slight irritation, to respond with spasms which may advance even to eclamptic seizures." (Nothnagel.) The same is true with regard to some adults.

In furtherance of the theory that the irritation is propagated to the medulla oblongata by the sympathetic system, is the initiatory phenomena of a convulsion which we doubtless all have witnessed. I have observed that the eclamptic seizure is first announced by an abduction of the eye-ball, then a twitching of the eye-lids, then a jerking of the facial muscles, and a gradual turning of the head to one side; now the shoulders and arms jerk, and so on down the body. The fifth and sixth pairs of nerves which supply the muscles of the eyes and the face, help to form the ganglion of

Laumonier and originate under the pons and near the fourth ventricle.

I have thus endeavored to briefly outline the theory that puerperal convulsions are due to an irritation of the sympathetic nerve propagated to the excito-motor centre, and thence reflected to the muscular system.

A review of the literature of the subject will satisfy any one that uræmia, anæmia, hyperæmia, hysteria, albuminuria, parenchymatous nephritis, mechanical pressure, *et id omne genus*, will not account for this disease, and not to the satisfaction of those who so claim.

I will take a hasty glance. It is beyond dispute that in many cases of puerperal convulsions there is no albuminuria; and in cases of albuminuria in pregnancy, convulsions do not always occur. I had a case in a primiparous mulatto who had albuminuria with anasarca, and no doubt had acute nephritis; and yet she had no convulsions; went to full term and was safely delivered of a live child. A few days ago she informed me that she had since had no trouble with her kidneys, and has since then been confined and had no trouble before or afterwards. Bartels quoting Virchow, vol. xv., p. 321, Ziemssen's Encyclopedia, says: "And so far as the changes in the kidneys are concerned, I have seen at least as marked departures from the normal state in a puerperal woman who had no eclampsia and even no convulsive attacks, as in those who had been truly eclamptic. Even if it would become possible to establish a constant connection between eclampsia and uræmia, we should always be compelled to assume some special predisposition in the nervous system, and my object in the foregoing remarks was to demonstrate this during pregnancy." Bartels, himself, says, after a thorough analysis of uræmia from acute parenchymatous nephritis of pregnancy, "There must, therefore, of necessity be still other influences at work, the nature of which might, perhaps, be discovered by more careful and more extensive investiga-

tions of the urine of pregnant women than have hitherto been instituted."—*Ibid*, p. 320.

If such able pathologists as Virchow, Bartels, Roberts, Nothnagel, and others, cannot account for puerperal convulsions on the ground of uræmia, it is well to hunt for some other cause.

Hydræmia will not do, for "some eclamptic patients maintain a blooming appearance and present no traces of anasarca."—Bartels, *Ibid*, p. 321.

Pressure of the gravid uterus on the emulgent veins will not give a satisfactory clue to the disease; because (1) these veins are so placed as to be protected from pressure; (2) because in twin pregnancies there is rarely convulsion; and (3) because there is usually a physical adaptation to the change.

Anæmia will not do; else why do we not have convulsions usually in *post partum* hemorrhages? If cerebral anæmia be the pathological state, why the success in treatment, of bleeding, chloroform, veratrum, and chloral?

I have divided the disease into eclampsia gravidarum, eclampsia parturientium, and eclampsia puerperium, because the attack may occur anywhere along the line. Convulsions have occurred at the third, fifth and seventh month, and at other epochs. They occur most commonly during labor, but do occur also after delivery. The treatment of these different forms is also somewhat different. Bartels says, Ziemssen's Enc. vol. xv, p. 320: "I borrow from Rosenstein, the following statistics, which he has compiled from statistics given by Braun and Weiger. In four hundred and forty-nine cases of eclampsia the convulsions occurred one hundred and twenty-one times before the labor pains set in, two hundred and sixty times during labor, and one hundred and eighteen times after the birth of the child, during the puerperal period. Of the cases in the last category, a considerable portion might perhaps be brought into connection with after pains."

This last passage from Bartels, taken in connection with

the following case, will go far towards proving the neurotic character of these convulsions. I had charge of a multipara of marked nervous temperament, who complained in the first stage of labor of a severe pain in the top of the head. Her way of expressing it was that she felt her "pains in her head." As labor progressed, this pain became more annoying, and general nervous disturbance began to manifest itself. Presently a slight convulsive seizure was manifested on the whole of the right side of the body. She had resisted the use of chloroform up to this time. I became satisfied that convulsions were imminent, and that delivery must be at once brought about. I sent for medical assistance, with a view to delivery by the forceps, and immediately began the use of chloroform inhalation. As soon as the great anæsthetic was felt, a change gradually came over the scene. It quieted the headache, gave self-possession to the patient, developed the expulsive pains, and relaxed the irritable os uteri. Before the consultant arrived, there was evidently no use for him. I am satisfied that general convulsions were avoided by the timely use of the anodyne. There was partial paralysis of the right side for forty-eight hours afterwards. Pressure of the child's head on the pelvic plexus and sciatic nerve, its passage through a rigid os and vulva, after-pains, and the effect of ergot on the womb, have been known to produce eclampsia.

Dr. Thomas quotes a paper by Dr. Henry F. Campbell, of Augusta, Ga., entitled "Blood-letting in Eclampsia (puerperal)," which I do not remember to have read, in which he expresses his view of the pathology of convulsions as "increased polarity and increased responsiveness to near and to distant excitor impressions," or reflex irritation, in other words. To Dr. Campbell belongs great credit as an original thinker, and as a pioneer investigator in the field of reflex excito-motorial impressions in the nervous system. In fact, it is believed he antedates Marshall Hall in this direction, though the latter first succeeded in gaining the ear of the scientific world, and really deserves great credit for industrious original work.

TREATMENT.

The most important practical outcome of all dissertations on this and other diseases is the treatment. What can be done to alleviate and to cure. This nervous pathology presents a much more hopeful outlook than that which attributes it to formidable organic disease. The mortality of puerperal convulsions is large; according to different authorities, ranging from thirty-five to eighty per cent. Under this neurotic pathology doctrine, the mortality has been much less. I will give my own experience, and that of Drs. Thomas and Ohr. I have seen of my own and in consultation, eight patients, and had but two deaths. I do not think either of the two who died had a fair chance. One was very large and plethoric, and died undelivered; the other had convulsions until I am satisfied effusion had taken place before she was delivered. Both were primaparæ; both white, and both not treated vigorously enough. The former bled insufficiently, and the latter not at all.

Dr. Thomas says: "It has been my misfortune to witness fifteen cases (now 17, 1883) in twenty-two years of active practice, and I sincerely hope I may never have to treat another case, though fortunate, as only one of the number was lost."

Dr. Ohr says: "My dealings and observations in cases of puerperal convulsions have not been very limited, except in the *post mortem* line. In upwards of thirty cases, there were but two deaths, both in charge of other gentlemen. One was bled, but after, in my judgment, sanguineous effusion had taken place; the other was not bled. * * In all the cases under my charge, free bleeding was promptly used, and all recovered; so that it has not been my fortune to have opportunities for *post mortems*, and consequently, I have to rely on others for the information to be derived therefrom."

I submit that the above gives a remarkably encouraging showing in treatment, and is a fair endorsement of the cor-

rectness of the pathology. Fifty-five (55) cases and five (5) deaths—about 9.50 per cent.

The great object and aim in all treatment of eclampsia is to allay central nervous excitement; to sedate or calm the action in the excito-motorial centre.

The most successful and most generally used remedies in practice all act as nervous depressants or sedatives. Some act directly on the centres, as chloroform, chloral, veratrum viride, quinine in large doses, and the bromides. Some act indirectly, as bleeding, opium, ice, mental quietude, etc.

For practical purposes, the treatment divides itself in—

1. Preventive treatment.
2. e. Gravidarum.
3. e. Parturentium.
4. e. Puerperium.

1. *Preventive or Hygienic Treatment.*

I attach much importance to this branch of the treatment. By proper hygienic and medical treatment, I believe eclampsia can be prevented in nearly every case—say ninety-five in a hundred.

The hygienic treatment consists in moral repose; a proper amount of physical exercise; abstinence from the excessive or untimely use of food, or of food of indigestible quality, (right here lies, in my opinion, the most common cause of convulsions); attention to all the secretory and excretory functions, as of the skin, the kidneys, the liver, and the bowels. As an illustration of the value of diet in this disease, I will mention that an exclusive milk diet has been successfully used in cases of threatened convulsions, and in cases which had previously invariably bad convulsions in their pregnancies. It is found to furnish all the elements of nutriment in sufficient quantity, and to stop the presence of albumen in the urine.

The medical treatment must be based upon common sense and experience, always bearing in mind to calm the nervous erethism. If there is too great fullness of the

arterial system hesitate not to bleed, and bleed as often and as much as may be necessary to accomplish the end—nervous sedation. In bleeding to prevent convulsions, of course it will not be necessary to bleed as much as during convulsions. Here bleed from a large orifice and sitting up. As soon as syncope threatens close the vein. Bleeding is one of the promptest and safest means of reducing systemic excitement at our command. I cannot see any objection to calling on this great therapeutic agent whenever our judgment suggests it. It is a perfectly controllable agent—one we can regulate to suit, and one which our practical forefathers esteemed chiefest in importance. I am satisfied it is unjustly "a lost art" in medicine, and that we especially neglect it too much "in the perils of child-birth." It is not only useful to prevent eclampsia, but also to prevent premature delivery. In the Medical Record for March 24th, 1883, p. 323, I find the following: "Dr. Mayo writes to the Australasian Medical Gazette, to the effect that he has found phlebotomy an efficient preventive of premature births. He recommends that from three to four ounces of blood be abstracted soon after the first indication of quickening. For fifty years he has resorted to this practice with good success. And he adds that he bleeds indiscriminately both robust and delicate women."

Free purgation is indicated when the tongue is thick and coated, and a mercurial purge is best. Bromide of potass, or chloral, or both combined, should be given to quiet nervous disturbance and to secure night rest. I have used the fluid extract of viburnum, but with no marked effect. Citrate of potass is useful if the urine is deficient in quantity. Tonics should be given if there is spanæmia. In some cases opiates may be given with benefit; that is where there is paleness and deficient blood pressure. Errors of digestion must be combatted.

ECLAMPSIA GRAVIDARUM.

In this form the chief reliance must be in free venesection;

and if not speedily controlled the womb must be emptied of its contents. But the effort should be made first to calm the excitement, by bleeding, free purgation, chloroform, chloral, bromide potass, veratrum, etc. If it does not soon appear that the convulsions are going to be subdued, then artificial delivery must be induced. It will take some strength to pull the patient through the delivery; so it may become a nice point to know when to stop the spoliative treatment, and when to induce labor.

ECLAMPSIA PARTURIENTIUM.

By far the large majority of convulsions occur in labor. If you are called to a case of puerperal convulsions with all the evidences of violent muscular action, with throbbing corotids and full veins, open a vein at once, and bleed, if necessary, to forty ounces, until the pulse is decidedly reduced in volume and increased in frequency. Then drop a full dose of calomel on the tongue as soon as you can, sixteen grains at least; if the convulsions still persist, follow up with chloral by mouth or enema; or chloroform by inhalation; or subcutaneous use of veratrum. Delivery is to be desired, and secured as soon as possible. Of course there is no invariable plan of treatment for every case; some women will stand and require more spoliative treatment than others. There is no procrustean bed in medicine. I have no doubt that the hypodermic use of morphine in half grain doses will best meet the indication in cases where there is not much blood pressure, as indicated by paleness of the surface, clearness of mind and not much carotid impulse, as well as in this form as in the post partum form. It acts by obtruding nervous perception, and thus indirectly as a sedative.

ECLAMPSIA PUERPERIUM.

In this form venesection does, as well as in the others, if there is evidence of blood pressure; and always bleed

enough; or it is useless waste of time and remedy. Purgatives may be needed now, too. Chloroform, chloral, and the bromides are useful also. In this form morphine hypodermically is especially useful. Cold applications to the head are proper.

Veratrum viride, since first suggested by Dr. Fearn, of Brooklyn, New York, as a remedy in convulsions, has been more or less extensively tried, and has afforded some satisfaction. His method was to give it in teaspoonful doses every hour until the pulse fell below sixty. I have used it in but one case of puerperal convulsions; in that case while the pulse was down to fifty there were no convulsions, but they returned after reaction set in, and the nausea was so great and alarming from its use, that I gave it up. This method of treatment has been reported on encouragingly by Dr. G. E. Kumpè, of Leighton, Alabama, at a former session of this Association. Dr. George A. Ketchum, of Mobile, speaks favorably of its use hypodermically; and Dr. Joseph A. Groves, of Brown's Station; Dallas county, Alabama, informs me that he used it successfully in two cases of post partum convulsions; he gives it in ten minim doses hypodermically every hour or two, and controls the pulse by it. Dr. Thomas, of Kentucky, in a pencil note to the copy of the paper above alluded to which he sent me, dated 1883, says: "Recently I have treated two cases of this character with veratrum with happiest results."

I have no doubt that veratrum has a directly depressing action on the excito-motor centre; its first effect is not on the heart, but beyond that, on the vaso-motor nerves, and secondarily on the heart, thus having a doubly happy effect, (1) depressing the nerves, and (2) lessening the blood pressure.

In the treatment of all forms of this disease sufficient attention must be given to the ingestion of nutriment enough to keep up the vital processes, such as sweet milk, chicken water, beef tea, meat essences and extracts, etc.

CONCLUSION.

I have thus endeavored, somewhat hastily and imperfectly, to illustrate my view of puerperal convulsions, and to express my firm belief that eclampsia puerperium is like eclampsia infantum, a purely and invariably reflex neurosis, due to the transmission of peripheral irritation to the excito-motorial centre; that this irritation is as often seated in the digestive nervous apparatus as in the uterine; that the impression is conveyed through the irritated sympathetic or ganglionic nerve; and that the great practical suggestion as to treatment is to get rid of the peripheral irritant, and to calm the central excitement.

SOME FACTS CONCERNING THE EYE-SIGHT IN SCHOOL CHILDREN.

BY FRANK TIPTON, M. D. OF SELMA,

Vice President and Junior Counsellor of the Medical Association of the State of Alabama.

During the past year the vision of all the children attending the public schools in this city (Selma), was carefully tested. Out of about five hundred and ninety children, white and colored, two hundred and fourteen failed to completely come up to the standard, test for perfect vision. Of this number, one hundred and sixty-two were whites, out of a total of three hundred and sixty-seven, and fifty-two were blacks out of a total of two hundred and ninety. The great majority of these cases were examples of very slight degrees of refractive error, almost normal. The variations noted in the refraction of the two eyes, in the same person, was quite small in most cases. The right eye reading at five meters perfectly, vision equaling 1.0, the left vision equaling 0.9, of Ginn, Heath & Co. Chart.

The negroes showed little predisposition to myopia, which is pre-eminently a disease of civilization. The high grades of refractive errors in these statistics were in children, almost invariably of foreign (principally Jewish) parentage. These facts form a fitting text for a short talk upon a most vital topic, viz: The hygiene of the eyes in school children.

It is not generally known that the foundation of bad vision is oftener laid in school life than at any other period of time. It is then that the eyes are put to the severest test, and, often sad to say, a fatal one. These organs are

developing *pari passu* with the body. All information derived from books, as well as nature, comes to us through these channels; not only does the child pore over its books in the close and badly ventilated school room, but also returns home, often to renew, by imperfect lamplight, the tax already too great to bear.

The condition known as myopia, or short-sight, is preeminently a cultivated defect; few children inherit it. The normal eye is almost a sphere in shape, and the light rays focus accurately upon the retina when the eye is at rest. Constant poring over books causes compression of the ball by the recti muscles. The tunics of the eye, as well as its interior, become hyperæmic from excessive straining, and the eye gradually elongates, becomes egg-shaped, and the focal point of the light rays remaining the same, gradually the retina is removed further and further away from it, in this process of elongation, until the focal point no longer rests upon it, and myopia results.

There is a general blurring of objects, and unless the process ceases by resting the eyes, or fitting them with glasses, posterior staphyloma or hernia ensues, or detached retina, or choroiditis, and vision is permanently and incurably impaired.

The remedy for these evils is to establish a general system of testing the vision of all school children upon entrance at school. Let their eyes be tested and fitted, if necessary, with proper glasses—if this be impracticable, then let the child's seat be near enough to the blackboard to see the smallest figures and letters; let his duties be light, with frequent breaks in his attention to his books. Statistics utterly refute the popular idea that early wearing of glasses weakens the eyes. It might be said with an equal grace that a crutch or splint retarded the cure of a broken limb; on the contrary, all statistics show that concave or near-sight glasses arrest myopia, whilst glasses for hypermetropia, used early, are the only preventive against squint, conjunctivitis, ocular pains, headache, &c., which are the inevitable

outgrowth of this condition as soon as the eye becomes the least taxed.

It is important in constructing a school-room to see that a good light comes in sufficient quantity over the left shoulder. The Germans estimate at least two hundred and ninety to three hundred (290 to 300) square inches of glass to each student—giving the south side the preference for lighting the room. Books should be well selected with reference to print—double-columned pages are the most restful of all forms to the eye. The recesses should be frequent and the night-work the least possible. Any signal of danger, such as headache, watering of the eyes, squint, &c., should be sedulously marked and the child given a vacation, and, if possible, sent to the oculist for glasses.

The public and the profession, in this State, have hitherto paid too little attention to this important subject, and it is high time that we were aligning ourselves with other progressive countries, by introducing these compulsory systems of examinations, not only for normal vision, but also for color blindness as well. Public authorities frame their measures in matters of public health only at the suggestion of medical boards, and it becomes our duty as guardians of the public health to ever take cognizance of all advances of a practically scientific value, and to early endeavor to apply them for the public weal.

THE DIAGNOSIS AND TREATMENT OF NASO PHARYNGEAL CATARRH.

BY FRANK TIPTON, M. D., OF SELMA,

Vice-President and Junior Counsellor of the Medical Association of the State of Alabama.

The great prevalence of this disease, its obstinacy, its great predisposition to relapse, and the imperfect ideas generally held regarding its pathology, diagnosis and treatment, have induced the writer to prepare this article.

There are four varieties of chronic nasal catarrh which should be borne in mind, viz: 1. Simple chronic coryza. 2. Hypertrophic nasal catarrh. 3. Atropic nasal catarrh. 4. Ozæna. Simple chronic coryza is the result of either repeated attacks of acute coryza or else is chronic from the first. This is the condition so often seen as chronic snuffles in delicate strumous children, and is associated with eczema and ophthalmia tarsi. The symtoms are a constant flow of mucous from the nose, and repeated and disagreeable attempts on the part of the person to hawk back the secretions from the naso-pharynx, constant staining of the handkerchief with blood after the last harshness in blowing the nose, and an unusual susceptibility to take cold under the slightest exposure. The discharge consists mainly of mucous and dead epithelium, and there is no marked thickening of the mucous membrane and no obstruction to free nasal respiration. As no crusts form in this variety there is no bad odor as one of its symptoms. Indeed, the increased susceptibility to cold, the constant blowing of the nose and hawking are the only subjective symptoms which

point to this condition, and are apt to be disregarded save by specialists; this is the more unfortunate, inasmuch as this is the time when treatment promises most, and if the disease be neglected in this stage it is apt to pass into the next, or hypertrophic stage.

In this stage, in addition to the above detailed symptoms there is superadded a pronounced obstruction to free nasal respiration, and all the annoyances springing therefrom. The mucous membrane covering the turbinated bones, becomes thick and spongy and occludes the passages. The coverings of the lower turbinated bones are generally most affected, the middle next. The obstruction to the free outlet of the discharge causes a constant dropping backwards into the pharynx of the retained secretions, which irritate and inflame the parts over which they run, much as the meatus of the nostril is excoriated and chafed by the discharge in acute coryza. This causes chronic pharyngitis, subacute laryngitis and all their attending ills. The many cases of simple chronic hoarseness, rendered so annoying to themselves and others by the constant habit of clearing the throat, are examples of these conditions. There are no crusts formed in this form of the disease, and there is but little, if any, odor emitted. The hearing often becomes involved, the chronic inflammation creeping up the Eustachian tubes and causing chronic middle ear catarrh. One-half, at least, perhaps more, of the cases of chronic deafness are due to this cause.

The third variety, atropic catarrh, is a sequel of the preceding variety, and comes of a destruction and shrinkage of the glands of the mucous membrane by a process similar to cirrhosis in other organs. The membrane becomes pale and atrophied and crusts form. There is a general feeling of dryness in the nose and throat, and a constant tingling, painful sensation. An aggravated and advanced state of this variety constitutes fetid catarrh, in which large fetid crusts form, and the odor of the breath is very offensive.

Ozæna, proper, is a state in which there is an offensive discharge from the nose, and great accumulation of crusts, due wholly to chronic disease of the accessory cavities, the antrum and sphenoidal causes. The nasal mucous membrane proper is unaffected primarily, and the causes of the disease are generally obscure.

Diagnosis: Seat the patient before a bright light or argand burner, adjust upon the forehead a good mirror, the larger the better; turn it to and fro until the focus falls well into the mouth; depress the tongue with a good tongue depressor, steadying the hand which holds it by slipping the knuckle of the middle finger under the patient's chin; cause him to breathe through the nose; now let the operator move his own head back and forth till a brilliant focus is thrown on the wall of the patient's pharynx, then pass with the right hand a half-inch throat mirror over the flame of the lamp chimney until it feels warm to the cheek; now cause the patient to breathe through the nose, or to say oug, oug; this will cause the velum to fall forward, when the mirror can be passed rapidly behind it and a glimpse gotten of the vault of the pharynx and post-nares. This view is at once diagnostic of the form of the catarrh to the trained eye, and this process can soon be learned by any one, without a teacher, if he will only be patient and follow the rules laid down. In the simple form of catarrh there will be nothing present but a diffused redness and inflammation. In the hypertrophic variety there will be marked thickening of the membrane over the turbinated bones, simulating tumors sometimes, and an abundant collection of mucous and pus.

These tumors look not unlike a berry coated with mucous, or, as my teacher used to say, like a grub-worm once seen, they are never afterwards forgotten. The pharynx below is generally chemically inflamed and studded with enlarged follicles. In the atrophic variety the parts look either dry and glazed (pharyngitis sicca), or else pale and relaxed with crusts filling up the post-nares, and the breath is generally bad.

Ozæna is recognized by the fetid odor and huge crusts which are always present in this condition; it is to be diagnosed from syphilitic ulceration of the nose by the presence in the latter of ulcers, which are quite marked in this specific physiognomy. It is in the treatment of these conditions that we are most at fault, and the writer hopes in this article if he cannot offer any strikingly useful line of medication, yet that he may classify and simplify the treatment, and extract from the chaos of suggested remedies and lines of treatment one which will always relieve, and sometimes cure this very obstinate and intractable malady.

The first step in the treatment consists in a thorough cleansing of the parts. When the physician's practice warrants the expense, one of Sass' compressed air reservoirs and spray fixtures should form a part of his office outfit. It costs from thirty to forty-five dollars, and is by far the best apparatus for the treatment of these conditions. If it be impracticable to use this, then Richardson's spray may be used, taking care to flood the nose and throat well with the cleansing solution, of which the following is the best: Carbolic acid, one grain; biborate of soda, two grains; bicarbonate of soda, two grains; glycerine, one drachm; water, one ounce. This can be made of course in quantities to suit, either as a spray or douche. When the parts can be properly cleansed by the spray it is unnecessary to use any harsher measure, but if the mucous seems to cling to the parts and the vault of the pharynx is improperly cleansed, then seat the patient as for inspection, use the head mirror, depress the tongue, pass the post nasal syringe with the beak turned flat to the right over the dorsum of the tongue until it passes the velum, then turn the beak upwards, press it against the roof of the pharynx and discharge some of its contents, a little at first, until the parts tolerate the whole, quickly afterward turning the beak of the syringe downwards to the right and withdrawing it, letting the fluid run from the nose into a basin held in the patient's lap. This should be repeated several times until the parts are well

cleansed, using the above solution. The ring of the piston rod should rest on the thenar eminence of the operator's thumb, and not around the tip, as usually used. This insures against entangling the beak of the syringe in the fold of the soft palate in the act of withdrawal. If this solution irritates too much, it must be diluted with plain water. The cleansing being well accomplished, spray the throat, nose and naso-pharynx with a solution of glycerite of tannin, one drachm, to the one ounce of water. Then insufflate with Smith's powder blower, pure powdered boracic acid. This treatment should be repeated every second or third day. In the interval I generally prescribe the nasal douche, using a tablespoonful of common salt and a teaspoonful of fluid of extract of witch hazel to each quart of warm water, night and morning. When the parts look red and congested, swab the naso-pharynx with a solution of nitrate of silver, twenty grains to the ounce. For this purpose use a soft iron wire application (a knitting needle will do, if set in a wooden handle and roughened at the extremity), wrap around the roughened extremity of the wire a roll of absorbent cotton about three-eighths of an inch in diameter and three quarters of an inch in length; turn this roll up to almost a right angle to the shaft, so as to assume the curve necessary to pass behind the palate, dip it into the solution and pass it rapidly behind the velum. If the velum hug the post-pharyngeal wall too closely, let the patient breathe through the nose and say, oug-oug. This will cause it to fall forward, when the probe can be quickly passed. The tongue should be depressed by the patient with the tongue depressor. When the operator prefers to operate with the direct light, instead of the reflected, otherwise he can use the depressor himself.

The solution should be retained a few seconds and then removed. These applications should be repeated every other day until the membrane assumes a healthy appearance. The general health should be cared for and placed in the best possible condition. Alterative tonics should be

used. The fluid extract of the witch hazel has a special reputation in these cases, in dose of from one-half to one drachm three times daily. There are no rules of thumb by which we can treat every case of catarrh, some requiring stimulating, others sedative remedies; yet the above forms a fair treatment of the majority of cases.

In the hypertrophic variety, when all other means fail, and breathing is greatly obstructed, the redundant mucous membrane should be removed by Dr. Jarvis' snare. This is not a severe or extremely painful process, and not bloody when slowly done. The relief is prompt and permanent. The snare is introduced with its wire loop to the post-pharynx through the nostril; the loop falls easily over the turbinated bone; now tighten the wire slowly (consuming an hour). There is generally little hemorrhage following, and there is little danger of cutting off too much tissue. Anything which the snare catches should come off, generally.

The writer has witnessed the good effect of this radical treatment in the throat clinics time and again. The relief is great and striking. The loop is best adjusted by aid of the rhinoscopic illumination of the post-nares, but this is not essential. Generally, if the loop is made right, it falls easily over the tumors. Polypi should be removed in the same way. Their presence is denoted by great tendency to sneeze, and increasing difficulty of nasal respiration. They are easily seen under illumination from the front.

In atropic catarrh, little can be done save to cleanse and disinfect the parts as often as necessary. This the patient can be soon taught to do himself with the nasal douche. In ozæna, iodoform should be insufflated tri-weekly, in addition to cleansing astringent. The best instrument for this is Smith's powder-blower. I always try, in these cases, mercury and potash internally.

Before closing, the writer begs leave to say that whilst these cases of catarrh are generally not the kind of practice one seeks for either glory or for pelf, yet they have a claim upon our time and sympathy; and whilst positive cures are

infrequent, yet many a kind word and grateful remembrance will come to him who deals with them patiently, and success will oftener reward his labors than he may at first be led to anticipate. Some of the best and most valued of the writer's patrons came in this way to him, and though many are but partially relieved, yet they like to feel that something is being done, and show their relief by always returning when unusually annoyed by their trouble.

Lastly, and in closing, I must say the secret of cure in this obstinate disease is often patience, both in physicians and patients—patience to make haste slowly.

INDEX.

PAGE

PREFACE 5

MINUTES OF THE PROCEEDINGS—First Day—Morning Session 7

Senior Counsellors present 7

Junior Counsellors present 7

Delegates present 8

Health Officers present 9

Visiting Physicians present 9

Ex-Officers of the Association present 10

Address of Welcome in behalf of the Jefferson County Medical Society, by Dr. H. N. Rosser 10

Address of Welcome in behalf of the Citizens of Birmingham, by Hon. O. A. Lane, Mayor 11

The Annual Message of the President 14

The Revision of the Minutes of the Session of 1882 31

The Annual Report of the Secretary 32

Treasurer 38

Business Reports 43

Evening Session 53

THE PROCEEDINGS OF THE SECOND DAY—Morning Session 54

The Regular Reporters 56

The State Woman's Christian Temperance Union 57

Volunteer and Miscellaneous Papers 58

Evening Session 58

THE PROCEEDINGS OF THE THIRD DAY—Morning Session 59

Reports of Special Committees 59

Report of Committee on Temperance Legislation 59

Color-Blindness 60

The Omnibus Discussion 61

Opening Remarks of Dr. M. H. Jordan 61

Is the Artificial Production of Abortion ever justifiable for the uncontrollable Nausea and Vomiting of Pregnancy 61

Causes—Treatment 62

Dangers of the Operation 64

Manner of Operating 65

Remarks of Dr. William H. Johnson, of Selma 66

Dr. Benjamin H. Riggs, of Selma 67

Dr. Jerome Cochran, of Mobile 68

Dr. John R. Hoffman, of Athens 75

THE PROCEEDINGS OF THE THIRD DAY—CONTINUED. PAGE

Dr. Edward H. Sholl, of Birmingham..... 75
Second Subject: In Abortion, should the Secundines be removed by Art, or left to the resources of Nature..... 76
Remarks by Dr. William H. Johnson, of Selma..... 80
Dr. Frank Tipton, of Selma..... 81
Third Subject: The injudicious use of Quinine..... 83
Remarks by Dr. Andrew Bowie, of Benton..... 84
Fourth Subject: The use of Galvanic Electricity in Uterine Therapeutics..... 86
Fifth Subject: The Prophylaxis, or Abortive Influence of Vaccination on Whooping Cough..... 88
Sixth Subject: Hypodermic Medication—its advantages and disadvantages..... 88
Remarks of Dr. E. Powell Riggs, of Birmingham..... 89
The Banquet..... 90
THE PROCEEDINGS OF THE FOURTH DAY—Morning Session... 90
The Tenth Annual Report of the Board of Censors, including the Report of the Committee of Public Health..... 92
PART I—Introduction..... 93
The County Medical Societies..... 95
Of certain provisions of the Constitution..... 98
The recent Session of the General Assembly..... 100
An Act to amend Section 1515 of the Code..... 102
The second attempt to repeal the Law to Regulate Practice..... 103
A Question of Medical Ethics..... 114
The Memorial of the Woman's Christian Temperance Union..... 116
The Grand Senior Counsellors..... 117
The Report of the Secretary and Treasurer..... 117
The Roll of the Correspondents..... 118
Applications for Charters..... 118
PART II—The Report of the State Board of Medical Examiners..... 118
The Work of the State Board of Medical Examiners. 118
The Work of the County Board of Medical Examiners.. 120
Note by the Senior Censor..... 126
Note by the Senior Censor..... 127
PART III—The Report of the Committee of Public Health—The Work of the State Board of Health..... 129
Yellow Fever..... 129
Statistical Blanks..... 130
Expenditures..... 130
The Work of the County Boards of Health..... 132
The Duties of the Assistant Health Officers..... 133

THE PROCEEDINGS OF THE FOURTH DAY—CONTINUED. PAGE

The Ship Island Quarantine Station..... 136
The Memorial of the Board of Health of the State of Alabama..... 137
Miscellaneous Recommendations..... 138
PART IV—Reports of the State Health Officer..... 139
Tabular Statements of Births and Deaths for 1882..... 140
Report on Yellow Fever and Quarantine..... 144
The Outbreak of the Epidemic..... 148
Circular Letter..... 149
First Work at the Junction..... 149
Disinfecting the Mails..... 150
Getting Information under Difficulties..... 150
Sketch of the Quarantine..... 151
The Disinfection of empty Freight Cars, and what grew out of it..... 152
The L. & N. Road and Dr. Cochran..... 154
The Origin and Progress of the Epidemic..... 156
Origin of the Epidemic..... 157
The Statistics of the Epidemic..... 161
The Outbreak of the Fever in Baldwin County..... 161
The Mobile Cases, as related by Dr. E. H. Fournier. 163
PART V—Supplementary Papers..... 164
Report on Medical Examinations and Fees for the same in the matter of Life Insurance—Montgomery Medical Society..... 164
Benevolent Associations..... 166
The Schedule for the Examination of Applicants for License to Practice by the Illinois State Board..... 169
Questions—Examinations in Anatomy..... 169
In Physiology; in Chemistry..... 170
General Pathology; Practice of Medicine; Surgery..... 171
Obstetrics; Gynecology..... 172
Materia Medica and Therapeutics..... 173
Hygiene; Medical Jurisprudence..... 174
Sketch of Yellow Fever at Whiting in 1870 and 1873, by Dr. James A. Wilkinson..... 175
The Epidemic of 1870 and 1873..... 176
The action of the Association on the Report of the Board of Censors..... 179
The Revision of the Rolls..... 184
(1) The Roll of the County Medical Societies..... 185
(2) College of Counsellors..... 185
(3) Roll of Correspondents..... 188
(4) Officers..... 189

THE BOOK OF THE ROLLS—CONTINUED. PAGE

Miscellaneous business 189
The Annual Register 191

THE BOOK OF THE ROLLS OF THE MEDICAL ASSOCIATION OF THE STATE OF ALABAMA 193

Introduction 193
The Roll of the County Medical Societies 193
College of Counsellors 237
Grand Senior Counsellors 237
Senior and Junior Counsellors 238
Counsellors elect 239
Correspondents—Officers 240
The Board of Censors and Committee of Public Health 240
The Schedule of the Regular Reporters 241
Special Committees 242
Annual Sessions 242
Annual Orators; Obituary Record 243

THE APPENDIX OF MEDICAL DISSERTATIONS AND REPORTS 245

The Annual Oration 247
The Therapeutic Uses of Quinine in Alabama 266
Introduction; Circular Letter 266
Dr. J. C. Abernethy, of Birmingham 268
Dr. J. W. Acker, of Montevallo 271
Dr. T. P. Burgamy, of Birmingham 271
Dr. Alfred S. Allen, of Cottondale 273
Dr. J. P. Alred, of Troy 274
Dr. H. T. Cox, of Mobile 275
Dr. A. G. Clopton, of Scottsboro 276
Dr. H. G. Crump, of Ferryville 277
Dr. D. M. A. Dansby of, Rehoboth 278
Dr. Samuel H. Estelle, of Blount Springs 280
Dr. E. H. Fournier, of Mobile 281
Dr. G. T. Gibb, of Whitney 283
Dr. J. M. Godfrey, of Sumterville 283
Dr. James A. Goggans, of Alexander City 285
Dr. J. F. Goldman, of Huntsville 289
Dr. W. W. Golson, of Autaugaville 291
Dr. J. J. Hendrix, of Lusk 292
Dr. B. W. Hinds, of New Hope 293
Dr. John R. Hoffman, of Athens 296
Dr. D. S. Hopping, of Letohatchie 297
Dr. W. H. Johnston, of Selma 299
Dr. Capers C. Jones, of Snow Hill 300
Dr. Geo. E. Kumpe, of Leighton 301
Dr. J. D. Kumph, of Perote 305

THE APPENDIX OF MEDICAL PAPERS—CONTINUED. PAGE

Dr. W. A. Mayes, of Midway 306
Dr. Geo. W. McDade, of Mathews' Station 307
Dr. F. S. McMahon, of Courtland 308
Dr. Jos. Moody, of Bridgeville 312
Dr. Thos. W. Pierce, of Knoxville 314
Dr. W. T. Purnell, of Prairie Bluff 315
Dr. A. J. Reese, of Mobile 316
Dr. T. L. Robertson, of Oxford 317
Dr. James P. Rorex, of Scottsboro 322
Dr. S. L. Roundtree, of Hartsell 323
Dr. R. V. Salmon, of Dadeville 323
Dr. C. P. Sanders, of Pleasant Ridge 314
Dr. E. H. Sholl, of Birmingham 324
Dr. Jas. W. Stewart, of Florence 326
Dr. W. C. Stewart, of Old Town 326
Dr. Job. Thigpen, of Greenville 327
Dr. F. Tipton, of Selma 329
Dr. J. S. Weatherly, of Montgomery 332
Dr. R. D. Webb, of Livingston 232
Dr. John M. White, of Pleasant Ridge 335
Dr. Geo. Whitfield, of Old Spring Hill 335
Dr. J. H. Willoughby, of Arkadelphia 336
Analysis of Testimony 337
(1) The use of quinine in malarial fevers 337
(2) in other malarial maladies 339
(3) in continued fevers 341
(4) in various zymotic diseases 343
(5) in rheumatism, pneumonia, &c 343
(6) as an antipyretic 344
(7) Illustrative case 345
(8) Bibliography 345
The Recent Progress in Gynecology 346
The Alcohol Question 358
The indictment against alcohol 361
The agency of alcohol in the production of disease 364
Disease as a cause of inebriety 373
Alcohol as a food 375
The testimony of Liebig 379
The effect of alcohol on animal temperature 381
Effect of alcohol on the gastric juice 380
The physiological action of alcohol 383
Another rectification 386
The opinions of medical men in regard to the use of alcohol. 388
From Dr. W. B. Carpenter 389
Dr. G. W. Balfour 389

THE APPENDIX OF MEDICAL PAPERS—CONTINUED. PAGE

Dr. Charles Murchison..... 391
Dr. James Risdon Bennett..... 392
Dr. Charles Bland Radcliffe..... 393
Dr. Joseph Kidd..... 394
Dr. A. B. Garrod..... 395
Dr. R. Brudenell Carter..... 395
Dr. Albert J. Bernays..... 398
Sir James Panget..... 399
James F. Johnston, Esq..... 406
Dr. Orpheus Everts..... 407
The prevention of drunkenness..... 408
Prohibition in Maine..... 412
Legislative interference..... 413
An Act for the prevention of drunkenness..... 417
The Epidemic of Rotheln in Autauga county..... 424
Eclampsia Gravidarum Parturientium et Puerperium..... 431
Treatment..... 441
Prevention or Hygienic treatment..... 442
Eclampsia Gravidarum..... 443
Partuerientium..... 444
Puerperium..... 444
Conclusion..... 446
Some facts concerning the eyesight in school children..... 447
The diagnosis and treatment of Naso Pharyngeal Catarrh..... 450

The next Annual Meeting of the Medical Association of the State of Alabama, will be held in the city of Selma on the second Tuesday in April, 1884, at 12 o'clock noon, and continuing four days.

Each county is entitled to send TWO Delegates. The assessment upon the County Societies is ONE DOLLAR for each member, exclusive of Counsellors and Delegates, the former of whom pay the ONE FEE of TEN DOLLARS and the latter FIVE DOLLARS. Further particulars will be found in the Annual Circular Letter of the Secretary, to be issued March 1st, 1884.

THE NEW YORK PUBLIC LIBRARY
REFERENCE DEPARTMENT

This book is under no circumstances to be taken from the Building

form 419